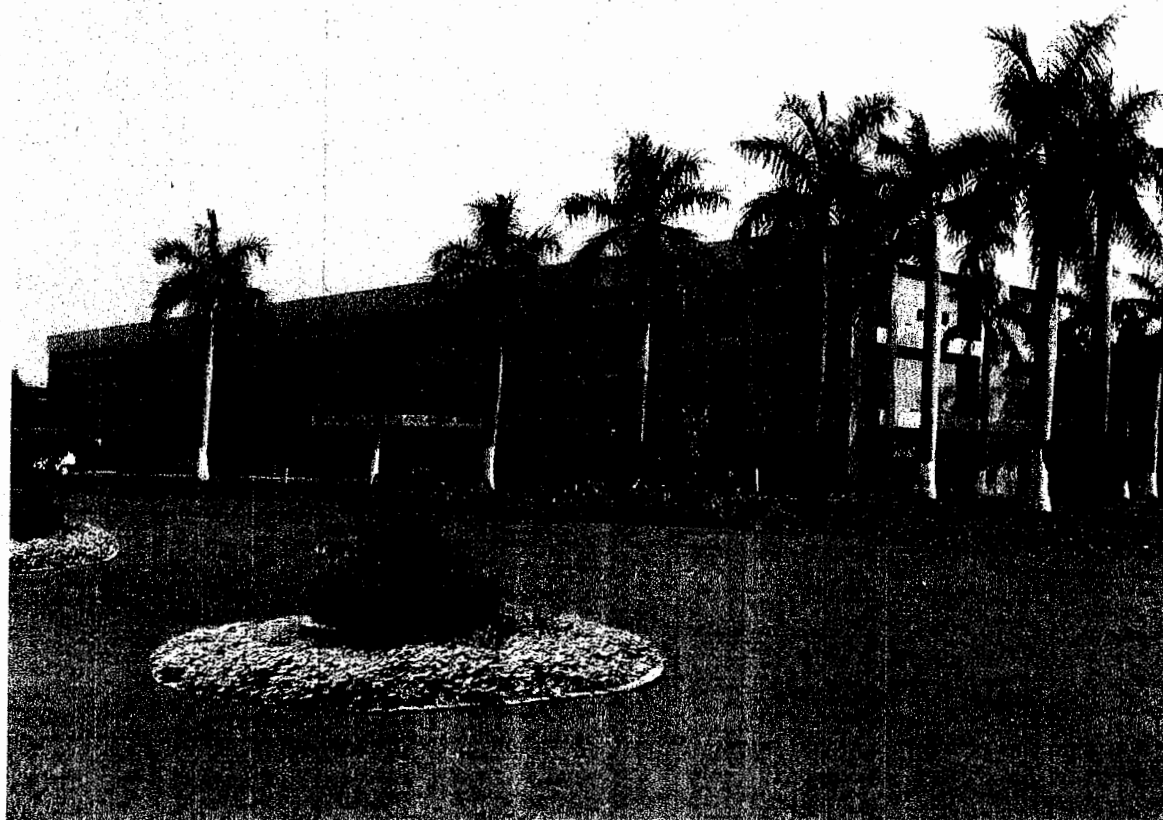




**AGENDA FOR 7<sup>th</sup>  
MEETING OF BUILDING &  
WORKS COMMITTEE**

**OCTOBER 18, 2006.**



**NATIONAL INSTITUTE OF TECHNOLOGY  
KURUKSHETRA-136119**

**AGENDA FOR 7<sup>TH</sup> MEETING OF BUILDING & WORKS  
COMMITTEE**

**VENUE :** Board Room  
National Institute of Technology  
Kurukshetra

**DAY :** WEDNESDAY

**DATE :** 18.10.2006

**TIME :** 11.30 AM

**NATIONAL INSTITUTE OF TECHNOLOGY  
KURUKSHETRA**

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## CONSTITUTION OF BUILDING & WORKS COMMITTEE

- |    |  |             |
|----|--|-------------|
| 1. | Dr. M.N. Bandyopadhyay<br>Director,<br>National Institute of Technology,<br>Kurukshetra.   | Chairperson |
| 2. | Er. M.P Gupta,<br>Director, Technical Education Haryana,<br>SCO No. 38-39, Sector 17-A<br>Chandigarh.  | Member      |
| 3. | Dr. G L Jambhulkar,<br>Deputy Educational Advisor,<br>Govt. of India, Ministry of Human Resource Development,<br>Department of Secondary & Higher Education,<br>Shastri Bhawan, New Delhi. | Member      |
| 4. | Dr. R.P. Singh<br>(Council Member, AICTE)<br>Retired Executive Director<br>BHEL, Bhopal, A-1, Chattarsal Nagar<br>Phase-I, J.K. Road<br>B.H.E.L. Bhopal                                    | Member      |
| 5. | Sh. R. Marya<br>Executive Director<br>NBCC Ltd., NBCC Place,<br>Bhishma Pitahma Marg, Pragati Vihar,<br>New Delhi-110003   | Member      |
| 6. | Er. S.K. Sharma<br>Executive Engineer (Civil)<br>Haryana PWD B&R Branch<br>Yamuna Nagar  | Member      |
| 7. | Er. Shyam Sunder<br>DGM (Electrical)<br>NBCC Ltd., NBCC Place,<br>Bhishma Pitahma Marg, Pragati Vihar,<br>New Delhi-110003   | Member      |

- |     |   |                  |
|-----|---|------------------|
| 8.  | Er. V.K. Gupta<br>Executive Engineer (Electrical)<br>Haryana PWD B&R Branch<br>Karnal                             | Member           |
| 9.  | Dr. Krishna Gopal,<br>Dean (P&D)<br>NIT, Kurukshetra  | Member           |
| 10. | Prof. Anil Kumar<br>Department of Architecture<br>CR State College of Engg.,<br>Murthal, Sonapat—131039 (Haryana) | Special Invitee  |
| 11. | Dean (Estate, Elect.Mtc. & Const.)<br>NIT, Kurukshetra.   | Special Invitee  |
| 12. | Prof. I/C(Estate & Const.)<br>NIT, Kurukshetra  | Special Invitee  |
| 13. | Prof. I/C(Elect. Mtc.)<br>NIT, Kurukshetra  | Special Invitee  |
| 14. | Sh. R.P.S. Lohchab<br>Registrar<br>NIT, Kurukshetra   | Member-Secretary |

**Item No. 7.1**

**To confirm the minutes of 6<sup>th</sup> meeting of Building & Works Committee held on 24.4.2006**

The minutes of 6<sup>th</sup> meetings of Building & Works Committee held on 24.4.2006 were circulated amongst the members vide No. EO/3796-3805 dated 24/25.4.2006 . No comments were received from any member. The minutes may, therefore, be confirmed.

**Item No. 7.2**

**To report the action taken on the minutes of 6<sup>th</sup> meeting of Building & Works Committee held on 24.4.2006.**

<b>Item No.</b>	<b>Subject</b>	<b>Decision taken</b>	<b>Action taken</b>
6.1	To consider the minutes of the 4 <sup>th</sup> & 5 <sup>th</sup> meeting of BWC held on 13.12.2005 and 21.2.2006 respectively.	Minutes confirmed	No action is required.
6.2	To report the action taken on the minutes of the 4 <sup>th</sup> and 5 <sup>th</sup> meeting of BWC held on 13.12.2005 and 21.2.2006 respectively	The Committee noted the action taken on various decisions taken by BWC.	
		Item (14.3 & 15.2). The Chief Engineer, PWD (B&R) was requested to expedite the installation of separate tube well for PWD colony.	Tube well has not been installed by PWD as yet and the matter is to be pursued with PWD (B&R) Haryana.
		Item (19.3 & 4.4) BWC approved the RCE amounting to Rs. 167.62 lacs for Constn. of 6 nos. Lecture Theatres.	Constn. of 6 nos. Lecture Theatres is completed and these are in use. Link corridors are also completed & taken over. The work for collapsible gate & boundary wall of lecture theatres are complete.
		Item (19.4) BWC approved the RCE amounting to Rs. 221.80 lacs for Constn. of a Gymnasium Hall in the Institute.	Funds awaited
		Item (19.10) BWC approved the RCE amounting to Rs.30.26 lacs for Renovation of Existing Reflection Tank.	Work is in Progress.

		Item (19.15) BWC approved the RCE amounting to Rs.18.39 lacs. for the Constn. of Training & Placement Department building in the Institute.	Funds awaited.
		Item(19.18 & 2.33) BWC approved the RRCE amounting to Rs.16.86 lacs for carrying out Renovation /Special repairs of Lawns in the Institute.	Work is under progress. Balance funds are awaited.
		Item (17.16, 20.12 & 1.9) BWC approved the RRCE amounting to Rs. 64.15 lacs for Const. of Community Centre in Institute.	Funds awaited.
		Item (20.13) BWC approved the item for auctioning of existing Gas Plant and to convert it into Canteen/any other purposes.	BOG approved this item. Auction of existing Gas Plant is to be carried out. The auction committee is already constituted by the Director.
		Item (1.4) BWC approved the RCE amounting to Rs. 593.38 lacs for the Construction of (350 Scatcers ) Boys' Hostel in NIT, Kurukshetra.	Partly funds received. Work is in progress.
		Item (1.6, 2.14 & 4.7) BWC approved the RRCE amounting to Rs.133.65 lacs for the Const. of External Boundary Wall of the NIT Kurukshetra.	Work is almost complete.



		Item No. (2.19, 4.8 & 6.4) The BWC approved the RRCE amounting to Rs.175.95 lacs for Const. of new equipment shop in workshop	Work is in progress. A. separate item no. 7.3 is being put up.
		Item No. (2.21) The BWC approved the RCE amounting to Rs.18.67 lacs for Prov. of High Mast Security Lights & boundary in the Community Park out of Plan grant and Rs.18.67 lacs out of Institute Dev. Fund.	Work is completed for two sites. Work for 3 <sup>rd</sup> Park is in progress.
		Item No. (2.23) The BWC approved the RCE amounting to Rs.5.00 lacs for Prov. of Green Room etc. at Open Air Theatre.	Work is completed.
		Item No. (2.25 & 6.3) The BWC approved the RRCE amounting to Rs.366.81 lacs for Const. of Adm. Block in lieu of class rooms.	The drawings are approved and the work is in progress.
		Item No. (2.35) The BWC approved the RCE amounting to Rs.40.15 lacs for Renovation of Lecture Theatres, Labs. etc	Rs. 22.52 lacs released during 2005-06 by the GOI to renovate 6 nos. Lecture Halls under TEQIP. Work is in progress.
		Item No. (2.36) The BWC approved the RCE amounting to Rs.30.25 lacs for Replacement of water supply & public health disposal pump and distribution network.	Rs. 21.94 lacs released by GOI under TEQIP. Work is in progress.

		Item No.(2.37) The BWC approved the RCE amounting to Rs.20.03 lacs for Renovation of electrical fittings in workshop.	The GOI released an amount of Rs. 19.67 lac's. under TEQIP. Work is in progress.
		Item No. (2.38 & 4.10) The BWC approved the RRCE amounting to Rs.22.01 lacs for Repair/ modification of Instructional building.	The GOI released an amount of Rs. 22.01 lacs. under TEQIP. Work is in progress.
		Item No. (2.40) The BWC approved the RCE amounting to Rs. 8.00 lacs for Provision of geysers and exhaust fans in hostel toilets.	Funds awaited
		Item No. (2.41 & 4.17) The BWC approved the RCE amounting to Rs.302.00 lacs for installation of HT/LT sub station.	Funds received partly.
		Item No. (2.42 & 4.17) The BWC approved the RCE amounting to Rs.154.00 lacs for installation of DG sets.	Funds received partly. Work is initiated.
		Item No. (3.8) The BWC approved a sum of Rs. 70.00 lacs for Special repair, renovation and miscellaneous works in the Institute for the year 2005-06 including Rs. 10.00 lacs for the replacement of furniture in Ist year hostel.	Work is in progress.

		Item No. (3.9) The BWC approved the RCE amounting to Rs. 15.74 lacs for the Construction of External boundary wall for Hostel no.3	Work is completed.
		Item No. (4.3) The BWC approved the RCE amounting to Rs. 85.44 lacs for glazed tiles in Hostels, Guest House, Residences (Toilets and kitchens) and Instructional Building (Toilets)	Funds awaited.
		Item No. (4.6) The BWC approved the clearing of final liabilities of Rs.0.74 lacs for PCC approach path to the residences. The GOI was be requested to release the said amount of Rs.0.74lacs.	Funds awaited.
		Item No.(4.9) The BWC approved the RCE amounting to Rs.21.97 lacs for Renovation of Old Library Building at NIT Kurukshetra out of funds from TEQIP.	Work is in progress.
		Item No. (4.11) The BWC approved the RCE amounting to Rs. 27.99 lacs for reconstruction of damaged/cracked/tilted compound walls in G type Houses of the campus.	Funds awaited.

		Item No. (4.12 & 6.16) The BWC approved the RRCE amounting to Rs. 240.76 lacs for Construction of Swimming Pool at NIT Kurukshetra.	Funds awaited.
		Item No. (4.13) The BWC approved Rs. 15.00 lacs for carrying out modifications, alterations and renovations of existing laboratories.	Expenditure to be met from the "Institute Development Fund".
		Item No. (4.14) The BWC approved the RCE amounting to Rs. 41.27 lacs for snowcem work on outside walls of residences at NIT Kurukshetra.	Work is in progress.
		Item No. (4.15) The BWC decided that for the time being, the present arrangement of getting the work done from the NBCC may be continued. The performance of both the agencies i.e. NBCC and the State PWD (B&R) may be reviewed.	No response was received from State PWD (B&R). Hence the matter could not be reviewed. Expression of indent invited. Yet to be reviewed.
		Item No. (4.18) The BWC approved the estimate amounting to Rs.10.00 lacs for special repair, renovation and miscellaneous works relating to Electrical Maintenance in the Institute.	Funds awaited.
		Item No. (5.2) The BWC approved the RCE amounting to	Work is almost complete.

		Rs.21.69 lacs for Extension of Mechanical Engg. Block alongwith NBCC charges 8% i.e. Rs. 1.74 lac to be met from Institute Development Fund.	
		Item No. (5.3) The BWC approved the RCE amounting to Rs.22.47 lacs for providing facilities viz. false ceiling, air-conditioning etc. Computing & Networking Centre, NIT Kurukshetra alongwith NBCC charges 8% i.e. Rs. 1.80 lac to be met from Institute Development Fund.	Work is completed.
		Item No. (5.4) The BWC approved the RCE amounting to Rs.19.44 lacs for Renovation of Administrative Block at NIT Kurukshetra alongwith NBCC charges 8% i.e. Rs. 1.55 lac to be met from Institute Development Fund.	Work is in progress.
		Item No. (5.5) The BWC approved the RCE amounting to Rs.14.79 lacs for Special repair of water channel at roof in Workshop alongwith NBCC charges 8% i.e. Rs. 1.80 lac to be met from Institute Development Fund.	Work is completed.

		Item No. (5.6) The BWC approved the RCE amounting to Rs.2.83 lacs for Renovation of Electrical Lab.& Conference Room (one no.) alongwith NBCC charges 8% i.e. Rs. 0.23 lac to be met from Institute Development Fund.	Work is completed.
6.3	To consider and approve the RRCE for Construction of New Administrative Block.	The Building & Works committee approved the RRCE amounting to Rs. 366.81 lacs for Construction of New Administrative Block.	An amount of Rs. 100.00 lacs received from GOI. Work initiated.
6.5	To consider and approve the RRCE for Provision of Community Scooter Stand for E & F type houses at NIT Kurukshetra.	The Building & works Committee approved the RRCE amounting to Rs. 15.62 lacs for Provision of Community Scooter Stand for E&F type houses at NIT Kurukshetra.	Funds awaited.
6.6	To consider and approve the Provision of stores in G-type houses at NIT Kurukshetra	The Building & works committee approved the RCE amounting to Rs. 28.48 lacs for Construction of Stores in G-type houses at NIT Kurukshetra	Funds awaited
6.7	To consider and approve the RCE for Renovation/Special repair of Old Health Centre Building.	The Building & works approved the RCE of Rs. 5.00 lacs for Renovation/special repair of Old Health Centre Building.	Funds awaited.
6.8	To consider and approve the RCE for Premix carpeting at National Institute of Technology, Kurukshetra.	The Building & works committee approved the RCE amounting to Rs. 13.22 lacs for Premix Carpeting at NIT Kurukshetra.	Funds are available. The work is in progress.

6.9	To consider and approve the RCE for Provision of Air conditioning, false ceiling and carpeting etc. in new lab.	The Building & Works Committee approved the RCE amounting to Rs. 4.24 lacs for provision of air-conditioning, false ceiling and carpeting etc. in new lab.	Work is in progress.
6.10	To consider and approve the rough cost estimate for two nos. Institute Main Gates.	The Building & Works committee approved the RCE amounting to Rs. 26.95 lacs for provision of two nos. Institute Main Gates.	Funds awaited.
6.11	To consider and approve the rough cost estimate for Provision of Badminton Hall in the Institute.	The Building & Works Committee approved the RCE amounting to Rs. 40.02 lacs for provision of Badminton Hall in the Institute.	Funds awaited.
6.12	To consider and approve the rough cost estimate for Construction of 4 nos. mess staff bearers barracks.	The Building & Works Committee approved the RCE amounting to Rs. 46.55 lacs for Construction of 4 nos. mess staff bearers barracks.	Funds awaited.
6.13	To consider and approve the rough cost estimate for Provision of Stores in Hostels.	The Building & Works Committee approved the RCE amounting to Rs. 30.57 lacs Provision of Stores in Hostels.	Funds awaited.
6.14	To consider and approve the rough cost estimate for Renovation of offices of faculty and other officers.	The Building & Works Committee approved the RCE amounting to Rs. 52.07 lacs for Renovation of offices of faculty and other officers.	Funds awaited.

6.15	To consider and approve the RCE for graded sitting arrangement for 2000 persons in the Open Air Theatre.	The Building & Works Committee approved the RCE amounting to Rs. 49.29 lacs for graded sitting arrangement for 2000 persons in the Open Air Theatre.	Funds awaited
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**Item No. 7.3 To consider and approve the Revised Cost Estimates for the Provision of Class Rooms, Laboratories and office rooms on the Ist Floor of New Equipment Shop at Workshop.**

The Building & Works Committee approved the Cost Estimate for Construction of New Equipment Shop in Workshop vide item No. 2.19 amounting to Rs.78.00 lacs in its 2<sup>nd</sup> meeting held on August 27, 2004 and Revised Cost Estimates amounting to Rs. 150.37 lacs in its 4<sup>th</sup> meeting held on December 12, 2005. The estimate was again revised amounting to Rs. 175.10 lacs vide item no. 6.4 in 6<sup>th</sup> Building & Works Committee held on 24.4.2006 as the provision of link corridor and parking place was made.

In the session 2006-07, intake of students in B.Tech. course has increased from 330 to 540 per year. Six new M.Tech. Courses and MBA course have been introduced and there is immediate need of class rooms, laboratories and office rooms. The ground floor in New Equipment Shop at workshop is ready and the equipments for the same are yet to be procured. The space will be utilised to accommodate new courses but in the next academic years, new batches of students will come and there will be urgent requirement of class rooms, laboratories and office rooms, etc. To cope up with additional requirements, it is proposed to construct the first floor of New Equipment Shop at workshop having a provision of class rooms, laboratories and office rooms. NBCC has submitted a revised cost estimate of Rs. 281.72 lacs for ground as well as first floor (which is as per existing contract for ground floor) for the construction of Ist floor of new equipment shop. For the electrical items, a lump sum provision (20% of civil works) has been made in the above RCE as the electrical items need to be re-designed as per memo no. 2164-65 dated 20.6.2006 from Govt. of Haryana. The cost estimates for the said works are indicated from Pages 15 to 43.

The Building & Works Committee may consider and approve the proposed construction of additional class rooms, laboratories and office rooms on the Ist floor of New Equipment Shop at Workshop at revised cost estimate of Rs. 281.72 lacs.

**REVISED COST ESTIMATE FOR CONSTRUCTION OF NEW EQUIPMENT  
SHOP AT NIT KURUKSHETRA**

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
<b>1</b>	<b>EARTH WORK</b>				
<b>2.6.1</b>	Earth work in surface excavation over areas exceeding 30 cm in depth 1.5m in width as well as 10 Sq.m. on plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m, surplus disposed earth to be levelled and neatly dressed.				
<b>a)</b>	All kinds of soil	<b>1773.35</b>	<b>CUM</b>	<b>105.80</b>	<b>187620.43</b>
<b>2.10</b>	Excavating trenches of required width for pipes, cable etc. including excavtion for sockets and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by rmming, watering etc. and disposing of surplus excavated soil as directed with in a lead of 50 m.				
<b>2.10.1.1</b>	Pipes cables etc not exceeding 80mm dia	<b>153.35</b>	<b>Meter</b>	<b>67.16</b>	<b>10298.99</b>
<b>2.26</b>	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 upto 50m and lift upto 1.5m.	<b>885.73</b>	<b>CUM</b>	<b>34.96</b>	<b>30965.12</b>
<b>2.28</b>	Supply & filling in plinth with jamuna sand under floors including, watering ramming consolidating and dressing complete.	<b>652.93</b>	<b>CUM</b>	<b>244.72</b>	<b>159785.03</b>
<b>2.35.1</b>	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ lindane emulsifiable concentrte of 20%	<b>102.00</b>	<b>Liter</b>	<b>152.72</b>	<b>15577.44</b>
<b>4.5.9</b>	Providing & laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plinth level.				
	1:4:8 ( 1cement : 4 fine sand : 8 graded stone aggregate 40mm nominal size).	<b>411.94</b>	<b>Cum</b>	<b>1522.60</b>	<b>627219.84</b>
<b>4.24</b>	Providing & laying Damp proof course 40mm thick with cement concreete 1:2:4 ( 1 cement : 2coarse sand: 4 graded stone aggregate 12.5mm nominal size).	<b>39.45</b>	<b>Sqm</b>	<b>97.52</b>	<b>3847.39</b>

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
4.27	Applying a coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7 kg per sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in korosene oil.	39.45	Sqm	34.04	1342.96
5.1.2	Providing & laying Reinforcement cement concrete in raft, footing, bases of columns etc. and mass concrete excluding the cost of centering, shuttering and reinforcement all work upto plinth level.				
	1:1.5:3 ( 1cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	781.00	Cum	2433.40	1900485.40
5.2.2	Providing & laying Reinforcement cement concrete in wall (any thickness) including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement.				
	1:1.5:3 ( 1cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	424.40	Cum	2703.88	1147526.67
5.3	Reinforcement Cement Concrete work in beams, suspended floor, roofs having slopes upto 15 degree, landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:2:4 ( 1cement:2coarse sand:4graded stone aggregate 20mm nominal size).	673.82	Cum	2438.00	1642773.16
	Extra for 1:1.5:3 instade of 1:2:4	928.87	Cum	230.00	213640.10
5.13	Reinforcement Cement Concrete work in vertical & horizontal fins individually or forming box louvers, fascia and eaves boards upto floor five level excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 ( 1cement:1.5coarse sand:3graded stone aggregate 20mm nominal size).	18.98	Cum	2584.28	49039.02
5.14	Centering and shuttering including strutting, propping etc. and removal of form for :				
5.14.1	Foundations, footings, bases of columns etc., mass concrete, and precast shelves.	789.68	Sqm	70.84	55941.13
5.14.3	Suspended floors, roofs, landing and balconies.	2363.25	Sqm	127.88	302212.41
5.14.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	3217.04	Sqm	101.20	325564.45

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
5.14.6	Columns, pillars, Piers, Abutments posts and struts.	2136.63	Sqm	156.40	334168.46
5.14.7	Stairs, (excluding landings) except spiral staircases	63.39	Sqm	122.36	7756.40
5.14.4	Shelves, Platforms, counters etc	101.28	Sqm	127.88	12951.69
5.16	Extra for additional height in centring, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering at all levels over a height of 3.5 m for every additional height of 1 metre or part thereof (plan area to be measured)				
5.16.1	Suspended floors, roofs, landing, beams and balconies (plan area to be measured ).	2154.21	Sqm	52.44	112966.77
5.29	Reinforcement for RCC work including straightening, cutting, bending, binding and placing in position and binding all complete.				
5.29.3 or 5.29.7	TMT bars. Or Cold Twisted bars.	167800.21	KG	34.96	5866295.34
5.36	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints complete as directed.	141.02	per cm depth per cm width per 100m	286.12	40348.64
5.37	Providing and fixing sheet covering over expansion joints with cadmium plated steel screws as per design to match the colour / shade of wall treatment.				
5.37.2 5.37.2.1	Aluminium fluted strips 3.15mm thick 150mmWIDE	70.00	meter	193.12	13518.40
5.38	Add or deduct for plaster drip course/ grooves in plaster surface or moulding to RCC projections.	15999.61	meter	10.12	161916.07
6.1.14	Brick work with FPS bricks of class designation 75 in foundation and plinth in:				
6.1.2	Cement mortor 1:6 ( 1cement: 6coarse sand).	971.38	Cum	1591.60	1546048.41
6.3	Extra for brick work in super-structure above plinth level upto floor V level.	880.04	Cum	237.36	208886.29
6.18	Half brick masonry with bricks of class designation 75 on foundation and plinth in:				
6.18.4	Cement mortor 1:4 ( 1cement: 4coarse sand).	1597.00	sqn	201.48	321763.56
6.19	Extra for half brick masonry in super-structure, above plinth level upto floor V level .	1545.07	sqm	25.76	39801.01

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
6.20.( A )	Extra for providing and placing in position 2 Nos. 6 mm dia M.S. bars at every third course of half brick masonry.( with FPS Bricks ).	1545.07	sqm	24.84	38379.55
9.25.	Providing & fixing 1st class hard wood and well matched commercial 3 ply veneering with vertical garins or cross bands and face veneers on both faces of shutters:				
9.25.3	35mm thick including ISI marked stainless steel butt hinges with necessary screws.	119.30	sqm	908.96	108439.61
9.37	Extra for cutting rebate in flush door shutters ( Total area of the shutter to be measured ).	116.43	sqm	64.60	7521.38
9.82	Providing & fixing M S grills of required pattern in frames of windows etc. with M S flats, square or round bars etc. all completed.				
9.82.1	Fixed to steel windows by welding.	5372.68	KG	46.92	252086.15
9.119.2	Providing and fixing ISI marked oxidised M S tower bolt black finish, (Barrel Type) with necessary screws etc.completed.				
	200x10mm	16.00	Each	26.68	426.88
9.122.1	Providing and fixing ISI marked oxidised M S handles conforming to IS: 4992 with necessary screws etc.completed.				
	125mm	311.00	Each	8.28	2575.08
9.127.2	Providing and fixing ISI marked oxidised M S hasp & staple ( safety type ) conforming to IS: 363 with necessary screws etc.completed.				
	115mm	311.00	Each	11.04	3433.44
9.127.A.3	Providing and fixing ISI marked oxidised M S casement stays ( straigh peg type ) with necessary screws etc.completed.				
	200mm weighing not less than 120gms.	146.00	Each	14.72	2149.12
9.222	Providing and fixing aluminium handles colour anodised (anodic coating not less than grade AC10 as per IS: 1868) to required colour or shade with necessary screws etc. complete.				
9.222.1	125 mm.	206.00	Each	37.72	7770.32
9.219	Providing and fixing aluminium tower bolt ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc.completed.				
9.219.1	300 x 10 mm	22.00	Each	52.44	1153.68

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
9.219.2	250 x 10 mm	44.00	Each	46.00	2024.00
9.219.3	200x10mm	32.00	Each	40.48	1295.36
9.218	Providing and fixing aluminium sliding door bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary nuts, screws etc. complete :				
9.218.1	300 x 16 mm	22.00	Each	103.96	2287.12
9.218.2	250 x 16 mm	32.00	Each	99.36	3179.52
9.223	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC10 as per IS: 1868) to required colour or shade with necessary screws etc. complete.				
9.223.2	Twin rubber stopper.	32.00	Each	53.36	1707.52
10.5	Providing & fixing in position collapsible steel shutter with vertical channel 20x10x2mm and braced with top and bottom rail of T- iron 40x40x6mm with 40mm dia steel pulley completed with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer.	17.50	Sqm	2220.88	38865.40
10.8	Supplying & fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire springs grade no.2 and MS top cover of required thickness for rolling shutters.				
10.8.1	80x1.25mm MS laths with 1.25mm thick top cover.	15.60	sqm	1227.28	19145.57
10.9	Providing & fixing ball bearing for rollin shutters.	2.00	Each	333.04	666.08
10.10.1	Extra for providing mechanical device chain and crank operation for operating rolling shutters.				
	Exceeding 10.00 sqm and upto 16.80 sqm in the area.	15.60	sqm	355.12	5539.87

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
10.13	Extra for providing and fixing steel beading of approved shape & section with screws instead of glazing clips & metal sash putty in steel doors, window, ventilators and composite units.	748.99	meter	16.56	12403.27
10.15	Providing & Fixing pressed steel door frames manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of surface as directed by engineer-in-charge.				
10.15.1	Profile A	1381.04	meter	230.00	317638.05
10.15.3	Profile C	477.27	meter	128.80	61472.38
	Providing & fixing MS glazed openable shutters 30 mm thick to window (excluding cost of glazing) mde out of MS bos section of size 75 x 35 mm x 1.6 mm thick including M S hinges and screws etc complete	205.25	Sqm	828.00	169947.00
9.7	Extra for providing heavy sheet glass panes instead of ordinary glass in glazed doors, windows and clerestory window shutters (Area of opening for glass panes excluding portion inside rebate shall be measured				
9.7.2	13.75 Kg/ Sqm (5.5 mm thick) instead of 10 Kg per Sqm (4mm thick)	59.00	Sqm	115.92	6839.28

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
14.106	Providing & fixing to existing door frames 30 mm thick factory made Polyvinyl Chloride (PVC) door shutters made of styles and rails of a UPVC hollow section of size 60 x 30 mm and wall thickness 2 mm (+ -) 0.2 mm with inbuilt decorative moulding edging on one side. The styles and rails mitred and jointed at the corners by means of M S galvanized/ plastic brackets of size 75 x 220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanized M S tube of size 25 x 20 mm and 1 mm (+ -) 0.1 mm wall thickness. The lock rail made up of H section a UPVC hollow section at size 100 x 30 mm and 2 mm (+ -) 0.2 mm wall thickness fixed to the shutter styles by means of plastic/ galvanized M S "U" cleats. The shutter frame filled with a UPVC multi chambered single panel of size not less than 620 mm, having overall 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 galvanized M S rod and fastened with nuts & washers, complete				
14.106.1	30 mm thick shutter	9.98	Sqm	1748.00	17445.04
10.33	Providing and Fixing hand rail by welding etc. to steel ladders railing, balcony railing and staircase railing including applying a priming coat of approved steel primer.				
10.33.3	G I Pipes 40 mm nominal bore (Class B)	614.85	KG	51.52	31677.07
11.5	40mm thick red oxide flooring under layer of 30 mm thick cement concrete 1:2:4 ( 1Cement: 2Coarse Sand: 4Graded stone aggregate 12.5 mm nominal size) and top layer of 10 mm thick plaster of cement red oxide mix (using 3.5 Kg of red oxide of iron per 50 Kg of cement) 1:3 (1 Cement:3 Coarse sand) finished with a floating coat of neat cement red oxide mix of same proportion including cement slurry, but excluding the cost of nosing of steps etc. complete.	550.73	Sqm	273.24	150481.47
11.11	Red oxide plaster skirting ( upto 30 cm ht. ) with top layer of 6 mm thick plaster of cement mortar red oxide mix using 3.5 Kg of red oxide of iron per 50 Kg of cement in mortar 1:3 (1Cement: 3Coarse Sand ) finished with a floating coat of cement red oxide mix of same proportion.				
11.11.1	18 mm thick with under layer 12 mm thick cement plaster 1:3 (1Cement : 3Coarse Sand)	22.31	sqm	133.40	2975.54



D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
11.15	40 mm thick marble chips flooring rubbed & polished to granolithic finish, under layer 34mm thick cement concrete 1:2:4 ( 1Cement: 2 Coarse sand : 4 Grade Stone aggregate 12.5 mm nominal size) and top layer 6mm thick with white, black, chocolate, green, yellow, or green marble chips of size from 1mm to 4mm nominal size laid in cement mabble powder mix 3:1 ( 3 Cement: 1 Marble powder) by weight in proportion of 4:7 (4 Cement marble powder mix : 7 marvie chips) by volume including cement slurry etc. complete.				
11.15.6	Ordinary cement without any pigment	328.68	sqm	184.92	60779.51
11.16	40 mm thick marble chips Skirting ( upto 30cm hight ) rubbed & polished to granolithic finish, under layer 31mm thick cement concrete 1:2:4 ( 1Cement: 2 Coarse sand : 4 Grade Stone aggregate 12.5 mm nominal size) and top layer 9mm thick with white, black, chocolate, green, yellow, or gren marble chips of size from 4mm to 7mm nominal size laid in cement mabble powder mix 3:1 ( 3 Cement: 1 Marble powder) by weight in proportion of 4:7 (4 Cement marble powder mix : 7 marvie chips) by volume including cement slurry etc. complete.				
11.16.1	Ordinary cement without any pigment	34.85	sqm	191.36	6668.13
11.20.1	Providing and Fixing Glass Strips in joints of terrazzo/cement concrete floor				
	40 mm wide and 4m thick	1847.43	meter	14.72	27194.16
16.4A.2	Providing and fixing 18mm thick mirror polished, machine cut black granite stone for wash basine platforms of required size of approved shade, colour texture laid over 20mm thick base cement mortar 1:4 (1cement:4coarse sand) with joint treated with white cement mixed with maching pigment epoxy touch ups including rubbing, curing, edge moulding, front latak and necessary cutout for sink and wash basis counter as per drawings complete in all respect.				
		12.08	sqm	2300.00	27784.00
11.48	Kota stone slab flooring over 20 mm (average) thick cement mortar 1:3 (1 Cement: 3 Coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete.				
	25 mm thick	123.85	sqm	521.64	64805.11

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
11.49	kota stone slab 25 mm thick in riser of steps, skirting, dado, and pillars laid on 12mm (average) thick cement mortar 1:3 (1 Cement : 3 Coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete.	35.42	sqm	531.76	18834.94
11.58	Extra for nosing in steps and treads of Kota stone slab.	148.00	meter	23.00	3404.00
11.73	Providing 7 Fixing 1st quality ceramic glazed tiles conforming to IS: 13753 of minimum thickness 5mm of approved make like NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in all colors, shades except begundy, bottle green, black of any size as approved by Engineer- in-Charge in skirting, riser of steps and dados over 12mm thick bed of cement mortar 1:3 (1 Cement: 3 Coarse sand) and jointing with grey cement slurry @ 3.3 Kg per Sqm including pointing in white cement mixed with pigment of matching shade complete.	254.60	sqm	394.68	100484.37
11.75	Providing & Laying ceramic floor glazed tiles 300x300mm ( thickness to be specified by the manufacturer) of first Quality conforming to IS: 13755 of NITCO, ORIENT, SOMANY or equivalent make in all colors, shades except white, ivory, grey, fume red brown laid on 20 mm thick bed of cement mortar 1:4 (1 Cement: 4 Coarse sand) including pointing the joints with white cement and matching pigments etc. complete.	106.91	sqm	530.84	56751.68

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
12.82	Providing & fixing at all ht. False ceiling of 12.5 mm thick tapered edges gypsum board conforming to IS: 2095 including providing and fixing of frame work made of special sections power pressed from MS sheet and galvanised in accordance with Zinc coating 600 as per IS: 277 and consisting of angle cleats of size 25x1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flanges fixed to the ceiling with dash fastner 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x5mm of required length, and other end of the angle hanger being fixed with nut and bolts to GI channels 45x 15 x 0.9 mm running at the rate of 100 mm centre to centre to which the ceiling section 0.5mm thick bottom wedges of 80 mm with tapered flanges of 26 mm each having clips of 10.5mm at 450 mm centre to centre shall be fixed in a direction perpendicular to GI channel with connecting clips made out of 2.64 mm dia x 230 mm long GI wire at every junction including fixing the gypsum board with ceiling section and perimetre channel 0.5mm thick 27 mm high having flanges of 20mm & 30mm long, the pe	97.87	sqm	478.40	46821.01
		0.00			0.00
11.78.2	Providing & laying polished porcelain vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorptions less than 1% and flexural strength not less than 30N/sqmm, in all colours & shades, laid on 20 mm thick cement mortar/adhesive/tile fixer 1:4 (1 cement: 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete of NAVEEN, EURO, NITCO, BELL, MARBONITE, THONSON or				
	Size of Tile 60 x 60 CM (Approx)	1032.19	Sqm	1406.68	1451961.03
13.8.4	12 mm cement plaster on the rough side of single or half brick wall of mix 1:6 (1 Cement: 6 Fine Sand)	3713.13	sqm	50.60	187884.38
13.24.1	6 mm cement plaster to ceiling of mix: 1:3 (1 Cement: 3 Fine Sand)	3237.12	sqm	46.00	148907.52
13.63	Pointing on tile brick work with cement mortar 1:3 (1 Cement: 3 Fine sand)				
13.63.2	Ruled pointing	4380.29	sqm	49.68	217612.81
13.70.1	White washing with lime to give an even shade				
	New work (Three or more coats)	2770.93	sqm	5.34	14796.77
13.77.2	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade				

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
	New work (Three or more coats) over and including priming coat with cement primer	3429.06	sqm	34.04	116725.10
13.79.1	Finishing wall with water proofing cement paint "Snowcem-Plus" of M/s Snowcem India Ltd. or equivalent of required shade	5029.32	sqm	26.68	134182.26
13.93	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:				
	Two or more coat of new work	1045.64	sqm	27.60	28859.62
16.2	Making plinth protection with bricks of class designation 75 laid on edge in cement mortar 1:6 (1 Cement: 6 Coarse sand) with 12mm thick bed of cement mortar 1:6 (1 Cement: 6 Coarse sand) over 75 mm bed of dry brick aggregate 40mm nominal size rammed, consolidated and grouted with fine sand and the top of brick pointed with cement mortar 1:3 (1 Cement: 3 Coarse sand)				
16.2.1	With F P S bricks	450.42	sqm	294.40	132603.65
17.1	Preparation of subgrade by excavation earth to an average of 22.5 cm depth, dressing to chamber and consolidating with road roller including making good the undulations etc. and disposal of surplus earth lead upto 50 meter.	4296.18	sqm	20.24	86954.68
17.2	Consolidation of subgrade with power road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spills etc. and rerolling the subgrade.	4296.18	sqm	0.92	3952.49
17.61	Cement concrete 1:2:4 ( 1 Cement : 2 Coarse Snd: 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete	35.36	Cum	2125.20	75147.07
19.1	Providing & Fixing water closet squatting pan (Indian type WC pan) with 100mm cast iron P or S trap 10 liter low level white PVC flushing cistern with manually controlled device ( Handle lever ) conforming to IS: 7231, Parryware/Hindware/Seabird/Orient(Carol) with all fitting and fixtures complete including cutting and making good the walls and floor wherever required:				
19.1.2	White Vitreous China long pan pattern WC pan of size 580 mm	9.00	Each	1897.04	17073.36

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
19.2	Providing & Fixing white vitreous china pedestal type water closet (European type WC pan) with seat and lid, 10 litre low level white PVC flushing cistren with manually cohtrolled device ( Handle lever ) conforming to IS: 7231, Parryware/Hindware/Seabird/Orient(Carol) with all fitting and fixtures complete including cutting and making good the walls and floor wherever required:				
19.2.2	WC pan with IS marked white solid plastic seat & lid	9.00	Each	1854.72	16692.48
19.4	Providing & Fixing white vitreous china flat back or wall cornertype lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass unions and GI clamps complete including painting, fitting and brackets, cutting and making good the walls and floor wherever required:				
19.4.3	Range of three urinals basins with 10 litre white PVC automatic flushing cistern Parryware/Hindware/Seabird/Orient(Carol)	5.00	Each	3556.72	17783.60
19.7	Providing & Fixing wash basin with CI/MS brackets, . 15 mm CP brass pillar taps, Kingston/Gem/Techno/Parko, 32mm CP brass waste of standard pattern, including painting of fitting and brackets, cutting and making good the walls wherever required:				
19.7.3	Wash basin size 550x400 mm with a pair of 15mm CP brass pillar taps.	12.00	Each	1004.04	12048.48
19.8.2	Add for providing 32mm dia CP brass trap	12.00	Each	104.88	1258.56
19.38	Providing & Fixing 100mm sand cast iron grating for gully, floor or nahani trap.	24.00	Each	13.88	333.12
19.42 A	Providing & Fixing mirror thickness of required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing.				
19.42A.4	Rectangular shape 1500 x 450 mm	12.00	Each	945.76	11349.12
19.43	Providing & Fixing 600x120x5 mm glass shelf with edges round of supported on anodised aluminium angle frame with CP brass bracket and guard rail complete fixed with 40mm long screws, rawl plug etc. complete.	6.00	Each	168.36	1010.16
19.45	Providing & Fixing toilet paper holder				
19.45.1	CP Brass	12.00	Each	115.00	1380.00

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
<b>19.48</b>	Providing & Fixing soil waste & vent pipes				
<b>19.48.1</b>	100 mm dia	<b>210.00</b>	Metre	344.08	<b>72256.80</b>
<b>19.48.2</b>	75 mm dia.centrifugally cast (spun) iron S & S pipe	<b>196.00</b>	Metre	427.80	<b>83848.80</b>
<b>19.49</b>	Providing and fixing M,S holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.				
<b>19.49.1</b>	for 100 mm dia. pipe	<b>16.00</b>	Each	60.72	<b>971.52</b>
<b>19.49.2</b>	for 75 mm dia. pipe	<b>16.00</b>	Each	59.80	<b>956.80</b>
<b>19.50.</b>	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
<b>19.50.1</b>	100 mm Centrifugally cast (spun) iron S&S.	<b>12.00</b>	Each	237.36	<b>2848.32</b>
<b>19.50.2</b>	75 mm Centrifugally cast (spun) iron S&S.	<b>12.00</b>	Each	189.52	<b>2274.24</b>
<b>19.51</b>	Providing and fixing plain bend of required degree.				
<b>19.51.1</b>	100 mm Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	187.68	<b>2252.16</b>
<b>19.51.2</b>	75 mm Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	126.04	<b>1512.48</b>
<b>19.52</b>	Providing and fixing heel rest sanitary bend.				
<b>19.52.1</b>	100 mm Centrifugally cast (spun) iron S&S	<b>9.00</b>	Each	230.00	<b>2070.00</b>
<b>19.52.2</b>	75 mm Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	202.40	<b>2428.80</b>
<b>19.67</b>	Providing and fixing terminal guard.				
<b>19.67.1</b>	100 mm Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	156.40	<b>1876.80</b>
<b>19.67.2</b>	75 mm Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	151.80	<b>1821.60</b>
<b>19.68</b>	Providing and fixing collar:				
<b>19.68.1</b>	100 mm dia Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	156.40	<b>1876.80</b>
<b>19.68.2</b>	75 mm dia Centrifugally cast (spun) iron S&S	<b>12.00</b>	Each	142.60	<b>1711.20</b>
<b>19.70.</b>	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter:				
<b>19.70.1</b>	100 mm	<b>90.00</b>	Each	105.80	<b>9522.00</b>
<b>19.70.2</b>	75 mm	<b>76.00</b>	Each	92.00	<b>6992.00</b>

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
19.71	Providing and fixing M.S. stays and clamps for sand cast iron / centrifugally cast (spun) iron pipes of diameter :				
19.71.1	100 mm dia	45.00	Each	42.32	1904.40
19.71.2	75mm dia	45.00	Each	41.40	1863.00
19.72	Providing and fixing sand cast iron/centrifugally cast(spun) iron trap of self cleansing design with sand cast iron screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:				
19.72.2	100 mm inlet and 75 mm outlet	14.00	Each	515.20	7212.80
20.2	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (Internal work):				
	Concealed				
20.2.1.1	15 mm dia nominal bore (Medium)	236.00	Metre	121.44	28659.84
20.2.1.2	20 mm dia nominal bore (Medium)	201.25	Metre	141.68	28513.10
20.3	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (External work):				
	Exposed on Wall				
20.3.1	15 mm dia nominal bore	208.45	Metre	74.52	15384.65
20.3.2	20 mm dia nominal bore	220.73	Metre	92.00	20307.16
	40mm dia nominal bore	165.16	Metre	161.00	26590.76
20.9.3	Providing and fixing brass gate valve with C.I. wheel of approved quality (screwed end).				
	25 mm dia nominal bore	6.00	Each	194.12	1164.72
	40mm dia nominal bore	8.00	Each	331.20	2649.60
20.77	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality.				
	15 mm dia nominal bore	206.45	Metre	1.84	379.87
	20 mm dia nominal bore	220.73	Metre	2.30	507.68
	40mm dia nominal bore	165.16	Metre	3.68	607.79
20.87	Providing and fixing G.I. union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (new work)				
	15 mm dia nominal bore	24.00	Each	71.76	1722.24
	20 mm dia nominal bore	21.00	Each	83.72	1758.12
	40mm dia nominal bore	14.00	Each	154.56	2163.84
20.91	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
	15 mm nominal bore	6.00	Each	268.64	1611.84
20.90.	Providing and fixing C.P brass bib cock of approved quality.				
	15mm nominal bore.	12.00	Each	188.60	2263.20
20.94	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931.				
	15 mm nominal bore	6.00	Each	213.44	1280.64
20.93	Providing & fixing C.P brass angle valve for basin mixer and geyser points of approved quality conforming to is: 8931. 15mm nominal bore.	42.00	Each	188.60	7921.20
21.1	Providing laying 7 jointing glazed stoneware pipes grade A with stuff mixture of cement mortar in the proportion of 1:1 ( 1 cement : 1 fine sand ) including testing of joints etc. complete.150mm dia	52.56	meter	128.80	6769.73
8.03	Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations.	2241.49	Sqm	325.68	730008.46
a)	Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound confirming to IS : 2645 over the RCC slab including cleaning the surface before treatment.				
b)	Laying cement concrete using broken bricks/brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement :5 coarse sand) admixed with proprietary water proofing compound confirming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound confirming to IS:2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.				
c)	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound confirming to IS : 2645.				



D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
d)	Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square.				
e)	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer.				
	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.				
	The treatment is to be carried out by a specialised agency with the approval of the Engineer and shall be guaranteed fully effective for a minimum period of 10 years.				
	Notwithstanding this, the responsibility of effectiveness of the treatment shall be fully, entirely and unqualifiedly be that of the main contractor for the work.				
12.39	Making khurras 45 x 45 cm with average minimum thickness of 5cm cement concrete 1:2:4 (1:cement: 2 coarse sand: 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.	65.00	Each	79.12	5142.80
20.89	Providing & placing on terrace (at all floor level) polyethylen water storage tank ISI: 12701 marked indicating the BIS License No. with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank (Sintex, Electroplast, Star, Lotus or equivalent having valid ISI license.)	9000.00	per litre capacity	4.60	41400.00
12.78	Providing and fixing on wall face unplasticised - rigid PVC rain water pipe conforming to IS:13592 type A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion.				
	(I) single socketed pipe				
12.78.1	75mm dia	15.00	mitter	100.00	1500.00
12.78.2	110mm dia	343.45	mitter	145.36	49923.89

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
12.79	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised rigid PVC rain water pipe conforming to IS:13592 type A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion.				
12.79.5.2	110mm bend	134.00	Each	93.84	12574.56
8.2.6	Providing & fixing 18mm thick mirror polished, machine cut for kitchen platforms, vanity counters facias and similar locations required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching				
	Granite Black	20.00	Sqm	3491.44	69828.80
8.3.2	Extra for providing edge moulding to 18mm thick marble stone counters, vanities etc. over item no. 8.2 including machine polishing to edge to give high gloss finish etc. complete as per design				
	Granite Work	60.00	Meter	119.48	7168.80
11.17.6	40mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 28mm thick cement concrete 1:2:4 (cement: 2 coarse sand: 4 graded stone aggregate 12.5 mm nominal size) and top layer 12mm thick with white, black, chocolate, grey yellow or green marble chips of sizes from 7mm to 10 mm nominal size laid in cement marble powder mix 3:1 (3 cement: 1 marble powder) by weight in proportion of 2:2 (2 cement marble				
	Ordinary cement without any pigment	180.00	Sqm	252.73	45491.40

D.S.R. Item No	Description Of Item	Qty	Unit	Rate	Amount
	<b>NON-SCHEDULE ITEMS</b>				
1	Providing and Fixing M.S.35x35x5 angle frames for windows, and ventilators with L- type section made of .004 mm thick M S welded jali joints mitred and welded and grinded finish with 15x3 mm lugs 10 cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 Cement: 3 Coarse sand: 6 Graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or fixing clips or with bolts and nuts and require including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primers.	72.47	Sqm	828.00	60005.16
2	Treatment of soil With chlorpyrifos/ lindane E C 20% with 1% concentration. (Free supply as per IS plinth area will be measured)	1011.73	Sqm	23.00	23269.79
3	Providing FRP sheet over structural steel frame 3 mm thickness	80.00	Sqm	1000.00	80000.00
4	Development of green belt as per instruction of Engineer in charge including removal and staking of unserviceable material within 50m and then supplying good earth at site and mixing of manure i/c supply of earth & manure at site and grassing with doaf grass.	243.00	Sqm	200.00	48600.00
5	Making grooves of 15 x 25 CM in CC double cut with concrete cutter and removing the CC in between and cleaning the grooves making good for filling hot sealing compound	1000.00	Sqm	35.00	35000.00
	<b>TOTAL - A</b>				<b>21267998.65</b>

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
<b>ELECTRICAL WORK</b>						
		<b>SUB-HEAD I - POINT WIRING</b>				
		(PVC INSULATED CU. CONDUCTOR WIRES IN MS CONDUITS)				
1)		Copper point (Primary point) wiring in MS conduit :				
		Wiring for light point / fan point / exhaust fan point / call bell point with 1.5 sq. mm PVC insulated, copper conductor cable in surface / recessed MS conduit including providing 1.5 sq mm dia earth copper wire for loop earthing as required.				
a)	403	Group - C	Nos	180.00	584.10	105138.00
		(CPWD-SR-94)				
2)		Copper point (Secondary point) wiring in MS conduit :				
		Wiring for Secondary (loop) point / fan point / exhaust fan point / call bell point with 1.5 sq. mm PVC insulated, copper conductor cable in surface / recessed MS conduit including providing 1.5sq mm dia earth copper wire for loop earthing as required.				
a)	403	Group - C	Nos	30.00	544.50	16335.00
		(DR/DSR-94)				
3)	404	Copper twin control point wiring in MS conduit :				
		(CPWD-SR-94)				
		Wiring for twin control light point with 1.5 sq. mm PVC insulated, copper conductor, cable in surface / recessed MS conduit with 2, way 5.6 amps. Plano tumbler type switch etc. as required including providing 1.5 sq mm dia earth copper wire for loop earthing as required.	Point	8.00	633.60	5068.80
4)	407	Copper plug point wiring in MS conduit (2 x 4 sq.				
		(CPWD-SR-94)				
		Wiring for power plug (with Neon) with 2 x 4 sq. mm PVC insulated, copper conductor, single core cable in surface / recessed MS conduit along with 1 no. 2.5 sq mm dia earth copper wire for loop earthing as required.	RM	200.00	118.80	23760.00
5)	408	Copper plug point wiring in MS conduit (4 x 4 sq.				
		(CPWD-SR-94)				
		Wiring for power plug (with Neon) with 4 x 4 sq. mm PVC insulated, copper conductor, single core cable in surface / recessed MS conduit along with 2 no. 2.5 sq mm dia earth copper wire for loop earthing as required.	RM	10.00	191.07	1910.70
6)	409	Copper circuit wiring in MS conduit (2x2.5 sq. mm)				
		(CPWD-SR-94)				

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
		Wiring for circuit wiring with 2 x 2.5+ 1x1.5 loop earth sq. mm PVC insulated, copper conductor, single core cable in surface / recessed MS conduit as required.	RM	800.00	89.10	71280.00
7)		Copper sub main wiring in MS conduit :				
		Wiring for submain wiring with the following size of PVC insulated, copper conductor, single core cable in surface/ recessed MS conduit as required.				
a)	412	2 x 6 + 1x4E sq. mm (For A/C socket) (CPWD-SR-94)	RM	40.00	148.50	5940.00
b)	412	2 x 6 + 1x4E sq. mm (For sub-main wiring) (CPWD-SR-94)	RM	90.00	148.50	13365.00
c)	419	4 x 10 + 1x6E sq. mm (CPWD-SR-94)	RM	125.00	297.00	37125.00
8)		Supplying and fixing of following sizes of MS conduit along with the accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a)	801	20 mm dia (CPWD-SR-94)	RM	800.00	59.40	47520.00
b)	802	25 mm dia (CPWD-SR-94)	RM	400.00	69.30	27720.00
c)	803	32 mm dia (CPWD-SR-94)	RM	200.00	99.00	19800.00
9)	1207	Supplying and fixing metal box of 180 mm x 100 mm x 60mm deep (nominal size) on surface or in recessed with suitable size Phenolic laminated sheet cover in the front including providing and fixing 3 pin 5/6 amp socket outlet and 5/6 amp tumbler/Piano type switch connection, painting, etc. as required. (For light plugs)	Set	27.00	138.60	3742.20
		(CPWD-SR-94)				
10)	1208	Supplying and fixing metal box of 180 mm x 100 mm x 60 mm deep (nominal size) on surface / recessed with suitable size Phonemic laminated sheet cover in the front including providing and fixing 6 pin 15 / 16 amp socket outlet and 15/16amp tumbler/Piano type switch connection, painting, etc as required. (For Power plugs).	Set	15.00	188.10	2821.50
11)	1822	S/F 32A SPNMCB industrial socket outlet :- (CPWD-SR-94)				

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
		Supplying and fixing 20 amps ,240 Volts SPN industrial type socket outlet with 2 pole and earth metal enclosed plug top along with 32 amps, "C Characteristics curve" series SP MCB , in sheet steel enclosure ,on surface or in recess with chained metal cover for the socket ,outlet and complete with connections ,testing and commissioning etc. as required. (For A/C outlets in flats)	Nos	6.00	841.50	5049.00
12)	1208	Supplying and fixing suitable module modular metal box on surface or in recess with suitable size modular base plate & cover plate including providing and fixing 1No. 6 pin 15/16 A and 2 Nos. 5/6 A modular socket outlets with shutters and 15/16 A modular switch, connections with name plate with marking "Power point on UPS" all accessories etc and all civil works complete as required. (Computer Power Point).	Set	17.00	594.00	10098.00
		(CPWD-SR-94)				
		<b>SUB-HEAD II</b>				
		<b>SUPPLY &amp; ERECTION OF LIGHTING FIXTURES &amp; FANS</b>				
1)	MR	Supply of the following flourescent tube light fixtures with all accessories, such as spring loaded side holders, copper ballasts, starters, power factor compensators, MS housing to house ballasts, starter, power factor compensator complete as required .				
a)		Philips cat. No. TMC-55, 1 x 36 W FL Lamp HPF, GE TCI C/S WIPRO WCF 50/140 with 36 W Trulite Fl. Lamp.	Nos	15.00	742.50	11137.50
b)		Philips cat. No. TCS-306, 2 x 36 W FL Lamp HPF, GE TC MO S, WIPRO WVF 41236, with 2 nos. 36 W Trulite Fl. Lamp.	Nos	60.00	2465.10	147906.00
i)	1225	Installation of Flourescent fittings with down rod:	Nos.	60.00	148.50	8910.00
	ITCFFDRCU	Installation, testing & comissioning of prewired, flourescent fittings, of all types, complete with all accessories and tubes etc. including supplying and fixing ball and socket arrangement, 2 nos. down rods of 20 mm dia x 1.6 mm thick steel conduit upto 30 cm. length, painting and wiring the down rods and connections with 1.5 sq. mm PVC insulated, copper conductor, single core cable as required.				
ii)	1227	Providing & fixing extra down rod:	Nos.	60.00	99.00	5940.00
	EXTDRCU	Providing & fixing extra conduit down rod of 20 mm dia 2x10 cm length with 2x1.5 sq. mm PVC insulated, copper conductor, single core cable including painting etc. as required (Note: More than 5 cm. length shall be rounded to the nearest 10 cm. and 5 cm.or less shall be ignored)				

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
c)		Philips cat. No. TKS-306, 2 x 36 W FL Lamp HPF, GE TC MO S, WIPRO WVF 41236, with 2 nos. 36 W Trulite Fl. Lamp.	Nos	25.00	2465.10	61627.50
i)	1225	Installation of above Flourescent fittings		25.00	148.50	3712.50
	ITCFFDRCU	Installation, testing & comissioning of prewired, flourescent fittings, of all types, complete with all accessories and tubes etc. including supplying and fixing ball and socket arrangement, 2 nos. down rods of 20 mm dia x 1.6 mm thick steel conduit upto 30 cm. length, painting and wiring the down rods and connections with 1.5 sq. mm PVC insulated, copper conductor, single core cable as required.				
2)	MR	Supply of the following PL lamp/ halogen fixtures complete with all accessories and with lamp, transformer, Ballast, control gear lamp etc. complete as required.				
a)		Philips Cat. No. FCS 31/211, 2 x 11W CFL or equivalent.	Nos	30.00	1485.00	44550.00
b)		Bulk head light suitable for 1 x 10W ,GE CFL E AS BH, PHILIPS FXC 101	Nos	20.00	841.50	16830.00
c)		Ceiling Fan (1400 mm) :				
i)	1229	Supplying	Nos	60.00	1633.50	98010.00
	ITCCFCU	Supply of 1400 mm 350 RPM with regulator ceiling fan including wiring the down rod of standrad length (upto 30 cm)				
ii)	1229	Installation	Nos	60.00	59.40	3564.00
	ITCCFCU	Installation, testing and commissioning of ceiling fan and regulator including wiring the down rod of standard length (upto 30 cm.) with 1.5 sq mm. PVC insulated, copper conductor, single core cable etc. as required.				
iii)	1008	Circular MS fan box:	Nos	60.00	59.40	3564.00
	MB20015074	Supplying & fixing Circular MS fan box of 150 x 75 x 60 mm deep in recess with suitable size of phenolic laminated sheet cover in the front including painting etc. as required.				
iv)	1232	Extra down rod 20 mm dia:	RM	50.00	19.80	990.00
	EXTPIP20	Supplying and fixing extra down rod of 10 cm. length, G.I. pipe, 20 mm dia., heavy guage, including painting etc. as required.				
v)	1230	Cutting and threading down rod:	Nos	40.00	9.90	396.00
	EXTCUTPIF	Extra for cutting and threading of G.I. pipe, heavy guage down rod for ceiling fan etc. as required.				
d)	1235	Exhaust fan (300 mm with louvres):	Nos	10.00	1930.50	19305.00

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
	ITCEF450	Supply of exhaust fan in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connections, testing, commissioning etc. as required.				
3)	1212	Erection of incandescent or CFL light fittings :				
		(CPWD-SR-94)				
		Erection of wall bracket/ceiling fittings of all sizes and shapes containing upto two GLS/CFL/MH/SON/Halogen lamps per fitting, complete with all accessories including connections	Nos	50.00	59.40	2970.00
4)	1235	ITC exhaust fan upto 450 mm sweep:				
		(CPWD-SR-94)				
		Installation of exhaust fan upto 450 mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connections, testing, commissioning etc. as required.	Nos	10.00	247.50	2475.00
5)	1237	Fixing louvers / Shutters for exhaust fan :				
		(CPWD-SR-94)				
		Extra for fixing the louvers / shutters complete with frame for exhaust fans of all sizes.	Nos	10.00	49.50	495.00
		<b>SUB-HEAD III</b>				
		<b>MDB'S, DISTRIBUTION BOARDS &amp; CABLES</b>				
1)						
		Supply, installation, testing and commissioning of 2 mm thick MS sheet steel fabricated cubicle type Panel dust and vermin proof complete with hinged and lockable doors . The Sheet Steel shall under go minimum seven tank treatment followed by finishing treatment of powder coating with 60 micron minimum thickness. All the panels shall be floor mounted and dead front construction complete with interconnections by copper strips/ wires and painting. The distribution boards shall be provided with 1 no. voltmeter of range 0-500 volts VSS, Ammeter of required range ASS along with associated C.T.'s in the incoming switch.				
		One set of phase indicating lamps with back up fuses in incoming feeder only. One no. ON indication lamp to be provided in all outgoing feeders.				
a.		<b>Main Panel (Length 1700mm, Depth 400mm &amp; Height 2100mm)</b>				
		<b>Incoming</b>				
		1 No. 630 amp 4P MCCB of 25 KA service breaking capacity and 630 amp Trip setting with heavy duty solid neutral link.				
		<b>Bus Bar</b>				



Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
		1 No. 800 amp TPN Aluminium Bus bar of suitable length.				
		<b>Outgoing</b>				
		3 Nos. 250 amp & 2 Nos. 200 amp 4P MCCB of 25 KA service breaking capacity & 300 amp Trip setting with heavy duty solid neutral link.				
		1 No. 100 amp 4P MCCB of 25 KA service breaking capacity & 100 amp Trip setting with heavy duty solid neutral link.				
		MDB & EMDB (A1 TO A7) described as above	Set	1.00	226215.00	226215.00
b.		<b>Panel Emergency</b>				
		<b>Incoming</b>				
		1 No. 250 amp 4P MCCB of 10 KA service breaking capacity and 25 amp on load change over switch Trip setting with heavy duty solid neutral link.				
		<b>Bus Bar</b>				
		1 No. 300 amp TPN Aluminium Bus bar of suitable length.				
		<b>Outgoing</b>				
		5 Nos. 63 amp 4P MCCB of 25 KA service breaking capacity & 25 amp Trip setting with heavy duty solid neutral link.				
		2 Nos. 63 amp DP MCB of 10 KA service breaking capacity				
			Set	1.00	83160.00	83160.00
c.		<b>PDB -Machine panel for workshop</b>				
		<b>Incoming</b>				
		1 No. 200 amp 4P MCCB of 25 KA service breaking capacity with electronic release.				
		<b>Bus Bar</b>				
		1 No. 250 amp TPN Aluminium Bus bar of suitable length.				
		<b>Outgoing</b>				
		4 Nos. 63 amp 4P MCCB of 25 KA service breaking capacity				
		4 nos. 40 A 4P MCB, 10 KA breaking capacity, motor duty.				
		2 nos. 32 A 4P DP MCCB, 25 KA breaking capacity, motor duty.				
			Set	1.00	186733.80	186733.80
d		<b>CAPACITOR Panel</b>				
		<b>Incoming</b>				
		1 No. 250 amp 4P MCCB of 25 KA service breaking capacity with electronic release.				
		<b>Bus Bar</b>				
		1 No. 250 amp TPN Aluminium Bus bar of suitable length.				
		6 nos. 32 A power contractor, 32 A TP mcb & 75 kVAR Cap. BANK				
			Set	1.00	129195.00	129195.00

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
		S/F 5A to 32A B Characteristics Curve series MCB :				
2)						
		Supplying and fixing 5 amp to 32 amps rating, 240 volts, "B Characteristics curve" series, miniature circuit breaker of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required (Category-B)				
		Single pole				
a.	1801		Each	100.00	143.55	14355.00
	(CPWD-SR-9)	S/F FP MCB isolator :				
3)						
		Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required :				
		63 amps				
a)	1813		Each	6.00	594.00	3564.00
	(CPWD-SR-94)					
4)						
		Supplying and fixing following rating, double pole, (single phase and neutral) 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a)	1816	63 amps	Each	15.00	2009.70	30145.50
	(CPWD-SR-9)	Supply and fixing of 8 way TPN DB double metal door enclosure (IP 42) with provision for installing 24 Nos of 10/20 amps SP MCB's i.e. 8 Nos. of 10/20 amp SP MCB's arranged in 3 rows arranged in 3 tier one above other and controlled by 1 No. 63 amp TPN MCB and neutral link and having per phase isolation with provision for installing SPN RCCB separate for each phase.( The rate does not				
5)	MR		Nos	5.00	4653.00	23265.00
	1903					
		Supplying, laying of following sizes XLPE insulated (Heavy duty) Aluminium conductor cables suitable for working voltage upto and including 1100 Volts , laid and tied on existing overhead cable trays; or laid and tied over MS supports in masonry trenches including providing MS supports and clamps for fixing to supports.				
6)	MR					
		3.5 Core, 185 sq. mm				
i.			RM	110.00	831.60	91476.00
		3.5 Core, 120 sq. mm				
ii.			RM	125.00	608.85	76106.25
		4 Core, 25 sq. mm				
iii			RM	100.00	222.75	22275.00
		4 Core, 16 sq. mm				
iv			RM	50.00	173.25	8662.50

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
7)		Supply and making end termination with brass compression glands and aluminium lugs following sizes of PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade of the following sizes as required.				
		3.5 Core, 185 sq. mm				
i)	630		Set	10.00	594.00	5940.00
	(CPWD-SR-9	3.5 Core, 120 sq. mm				
ii)	627		Set	4.00	495.00	1980.00
	(CPWD-SR-9	4 Core, 25 sq. mm				
iii)	620		Set	6.00	99.00	594.00
	(CPWD-SR-9	4 Core, 16 sq. mm				
iv)			Set	20.00	99.00	1980.00
8)						
		Supply and making end termination with brass compression glands and copper lugs following sizes of PVC sheathed / aluminium conductor cable of 1.1 KV grade of the following sizes as required.				
a		2 Core, 6 sq. mm	Set	20.00	99.00	1980.00
9)		<b>Race way for machines</b>				
	(CPWD-SR-95					
		Fabricating and installing following size of MS GI Race way cover with locking arrangement				
i		200 mm width x 75mm depth x 2.0 mm thickness	RM	65.00	420.75	27348.75
ii		300 mm width x 75mm depth x 2.0 mm thickness	RM	5.00	594.00	2970.00
		<b>SUB-HEAD IV</b>				
		<b>EARTHING &amp; LOOP EARTHING</b>				
		Earthing with G.I. earth plate as per IS: 3043 including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal and salt) complete as required.				
1)	2104)		Set	6.00	3465.00	20790.00
	(CPWD-SR-9	Extra for charcoal and salt for GI plate or copper plate earth electrode as required.				
2)	2106		Set	6.00	594.00	3564.00
	(CPWD-SR-9	P/F 25 x 5mm GI earth strip in surface / recess :				
3)	2117					
	(CPWD-SR-9	Providing and fixing 25mm x 5mm GI strip on surface or in recess for connections etc. as required.				
			RM	100.00	99.00	9900.00
		P/F 6 SWG G.I. earth wire with conduit/cable :				

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
4)	2120					
	(CPWD-SR-9)	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with the existing surface / recessed conduit / submain wiring / cable as required.				
			RM	500.00	17.82	8910.00
		P/F 25 x 5 mm GI earth strip in pipe :				
5)	2113					
	(CPWD-SR-9)	Providing and fixing 25 x 3 mm GI strip in 40 mm dia GI pipe from earth electrode as required.				
			RM	20.00	247.50	4950.00
		<b>SUB-HEAD V</b>				
		<b>TELEPHONE WIRING AND CONDUITING</b>				
		Supplying and fixing in position MS anodised box including providing RJ 11 telephone socket, white polycarbonate cover plate complete as required.				
1)	MR		Nos.	16.00	123.75	1980.00
		Supplying and wiring with 4 x 0.61 mm dia (2-Pair) PVC insulated copper conductor wires in existing conduits from the telephone outlet box to the tag block.				
2)	MR		RM	220.00	17.82	3920.40
		Supply and laying of the following sizes of PVC Insulated copper conductor armoured telephone cables.				
3)	MR	10 Pair cable of 0.61 mm dia				
			RM	150.00	138.60	20790.00
4)	MR	20 Pair tag block (TTB)				
			Nos	1.00	1485.00	1485.00
		Supplying and fixing of following sizes of MS conduit along with the accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
5)		20 mm dia				
	802		RM	180.00	59.40	10692.00
	(CPWD-SR-94)					

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
		<b>CONDUITING FOR COMPUTER NETWORKING</b>				
6)						
a)		Supply and fixing of following sizes of MS conduit alongwith the accessories in surface/recess (including supply & fixing of conduit with all accessories) including painting in case of surface conduit or cutting the wall and making good the same in case of recessed conduit as required.				
	i)	20 mm dia	RM	150.00	59.40	8910.00
	ii)	25 mm dia	RM	10.00	69.30	693.00
b)		Supplying and fixing 18 module modular metal box on surface or in recess with modular cover plate and all accessories complete as required.	Nos	1.00	495.00	495.00
		<b>SUB-HEAD VI</b>				
		<b>FIRE DETECTION AND ALARM SYSTEM</b>				
		Supply, installation, fixing, testing and commissioning of Manual call point in ABS plastic body (Break glass) to initiate audio visual alarm as per specifications complete.				
1	MR		Nos	1.00	693.00	693.00
		Supply, installation, testing and commissioning of Fire Alarm Hooter having and audible range of 25 meters.				
2	MR		Nos	1.00	693.00	693.00
		Supplying, installation, fixing, testing and commissioning of wall mounting microprocessor based 2 zone control panel microprocessor based with window type annunciation to indicate fire and				
3	MR		Set	1.00	27720.00	27720.00
		Supply, installation, testing and commissioning of following types of addressable fire detection and alarm accessories as per technical specification & complete with connections etc as required.				
4)						
a)	MR	Ionization type Smoke Detector	Nos	20.00	1980.00	39600.00
b)	MR	Heat Detector	Nos	4.00	1782.00	7128.00
c)	MR	Response Indicator	Nos	10.00	198.00	1980.00
5)		Supply and drawing 2 x 1.5 sq.mm. PVC insulated copper conductor, single core cable in the existing surface/recessed PVC /steel conduit/PVC casing and capping as required.				
	602		RM	500.00	29.70	14850.00

Sl. No.	SR No.	Item Description	Unit	Qty	Rate in Rs.	Amount in Rs.
6)	CPWD-SR-9	Supply and laying of 5C x 1.5 sq.mm. PVC insulated copper conductor cable complete as required.				
			RM	50.00	168.30	8415.00
7)	MR	Supplying and fixing of following sizes of steel conduit along with the accessories in surface/recess including painting in case of surface conduit or cutting the wall and making good the same in case of recessed conduit as required.				
a)		20 mm dia				
	702		RM	150.00	59.40	8910.00
b)		20 mm dia GI Flexible:	RM	25.00	49.50	1237.50
		<b>SUB-HEAD VII</b>				
		<b>EPABX</b>				
		Supply, installation, fixing, testing and commissioning of MDF (Krone type) for termination of 20 lines with necessary protective devices for all trunk line from high voltage & high current complete as required.				
1	MR	EPABX	Set	1.00	42075.00	42075.00
		<b>ELECTRICAL WORK ALREADY APPROVED</b>				2017382.40
		<b>ELECTRICAL WORK FOR FIRST FLOOR</b>				1580000.00
		<b>Total B</b>				3597382.40
		<b>TOTAL A + B</b>				24865381.05
		<b>Contingency Charges 3%</b>				745961.43
						25611342.48
		<b>NBCC CHARGES 10%</b>				2561134.25
		<b>TOTAL</b>				28172476.73

Sd/-  
DGM, NBCC LTD  
NIT KURUKSHETRA

**Item No. 7.4 To consider and approve the cost estimate for extension of Director's Residence.**

The Director's residence was constructed about 43 years back for the Principal of erstwhile Regional Engineering College Kurukshetra. The house was having similar area as those of Professor type houses. Later on, the house was marginally extended by about 450 sft. in early 1990's. The house consists of one drawing cum dining room, three bed rooms, a guest room and a very small office room. The office room and drawing room, being very small, are inadequate to accommodate the camp office of Director at his residence. More over, there is no provision of drawing room for the family of the Director. It is pertinent to mention that the post of the Director of NITs has been elevated to the Vice-Chancellor's position with higher pay scale. Vice-Chancellor's residence possess full fledged facilities for camp office including waiting room, PA's office, VC's office chamber, etc. In order to make present residence of the Director functionally better, it is proposed that the house be extended vertically with an additional area of about 150 sqm. at an estimated cost of Rs. 18.63 lacs, submitted by NBCC. Pages 45 to 48 may referred to for cost estimates

The Building & Works Committee may consider the above proposal and approve estimated cost of Rs. 18.63 lac for the extension of Director's residence.

**ROUGH COST ESTIMATE FOR CONSTRUCTION OF PROVISION  
OF RESIDENTIAL CAMPUS OFFICE AT 1ST FLOOR IN  
DIRECTOR'S RESIDENCE (A-1)**

Preliminary Cost Estimate Based on CPWD PAR'92

%		
SI No.	Description	Amount (in Rs)
1	Civil Works	1180507.37
2	Plumbing	127430.66
3	Electrical	236101.47
4	External Finishing	100000.00
	<b>Total</b>	<b>1644039.50</b>
	Add Contingency @ 3% on above	49321.19
	<b>Total</b>	<b>1693360.69</b>
	Add NBCC Charges @ 10%	169336.07
	<b>Grand Total</b>	<b>1862696.75</b>
		<b>Say Rs. 18.63 Lacs</b>

Sd-  
DGM, NBCC LTD.  
NIT, KURUKSHETRA



## SUMMARY OF COSTS

SI No.	Description	% Escalation	Amount (in Rs)
1	Civil		529375.50
	Add Cost Index Escalation @ 123%	123%	651131.87
	<b>Total</b>		<b>1180507.37</b>
2	Plumbing		57143.80
	Add Cost Index Escalation @ 123%	123%	70286.87
	<b>Total</b>		<b>127430.66</b>
3	Electrical		105875.10
	Add Cost Index Escalation @ 123%	123%	130226.37
	<b>Total</b>		<b>236101.47</b>
4	External Finishing		100000.00
	<b>Grand Total</b>		<b>1644039.50</b>

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<b>Preliminary Cost Estimate Based on PAR</b>					
SI No.	Description	Area (in Sq Mtrs)	Rate in Rs.)	Amount (in Rs)	Reference
<b>1</b>	<b>Civil Works</b>				
<b>1.1</b>	RCC Framed Structures				
<b>1.1.1</b>	Main Building (Height 3.6m)				
<b>A</b>	<b>Total</b>	150.00	2,810.00	<b>421500.00</b>	PAR 92/1.1.1
<b>1.2</b>	Extra For				
<b>1.2.1</b>	Extra for Additional Height of 0.25 Mtrs over 3.35 m $0.25/0.3 \times 125 = 104.17$	150.00	104.17	15625.50	PAR 92/1.2.3
<b>1.2.2</b>	Resisting Earthquake Forces	150.00	250.00	37500.00	PAR 92/1.2.8
<b>1.2.6</b>	making stronger foundation to take load of one additional floor at a later date (on area of additional floor only)	150.00	365.00	54750.00	
<b>B</b>	<b>Total</b>			<b>107875.50</b>	
	<b>Total Cost of Civil Works as per PAR</b>			<b>529375.50</b>	
	<b>Services</b>				
<b>2.1</b>	Plumbing				
	Internal Water Supply & Sanitary				
<b>2.1.1</b>	Installations		4% of Civil	21175.02	PAR 92/3.1
	External Services		5% of Civil	26468.78	
<b>2.1.3</b>	Over Head Tank without Staging				
<b>a</b>	Domestic Tank (Capacity in Ltrs)	2,000.00	4.75	9500.00	PAR 92/4.1
	<b>Total</b>			<b>57143.80</b>	

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	<b>Electrical</b>				
<b>3.1</b>	Internal electrical Installations	}			
<b>3.1.1</b>	Extra for Power wiring plugs				
<b>3.1.2</b>	Extra for lighting conductors		20% of Civil	105875.10	
<b>3.1.3</b>	Telephone Conduits				
	Internet				
	<b>Total</b>			<b>105875.10</b>	
<b>4</b>	External finishing & internal rich finishing			<b>100000.00</b>	

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NIT, KURUKSHETRA

**Item No. 7.5 To consider and approve the work for 25 mm thick premix carpeting at NIT, Kurukshetra.**

The Building & Works Committee approved the cost estimate for premix carpeting over roads at National Institute of Technology, Kurukshetra amounting to Rs.13.22 lacs vide item no. 6.8 in the 6<sup>th</sup> Building & Works Committee held on 24.4.2006. Due to abrupt increase in prices of petroleum and bitumen products, the cost of the work has been adversely affected. For the time being, the Chairman, B&WC in anticipation of B&WC meeting restricted the final executed value amounting to Rs. 13.22 lacs of this work by reducing the quantum of work in anticipation of approval of Building & Works Committee.

The Building & Works Committee may consider and approve as above.

**Item No. 7.6 To consider and approve provision of Barbed wire fencing over existing old boundary wall.**

The boundary wall around the Institute campus was constructed in two phases. In the first phase, about 1 Km long boundary wall was constructed with pre-cast RCC slabs, about 5' high from NSL. Subsequently, the Government of India sanctioned the construction of another stretch of about 3.5 Km RCC boundary wall, 7' high. Over the time, the old portion of the boundary wall has settled marginally, thus further shortening the height, which is easily accessible by trespassers. The matter was referred to the *Standing High Power Technical Committee* constituted by the Director for its comments and suitable recommendations. The committee visited the site on June 07, 2006 and recommended as follows:

- (i) The height of the existing boundary wall along Kirmich Road near Hostels should be increased by increasing the height of columns.
- (ii) The missing/broken pre-cast slabs should be fixed/replaced.
- (iii) The barbed wire fencing may be provided above the pre-cast slabs

The cost estimate for the work as recommended above amounting to Rs. 4.94 lacs has been submitted by NBCC and the same was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. Funds are available under the head, 'Construction of External Boundary Wall'. The cost estimates have been indicated on Pages 51 to 52.

The Building & Works Committee may consider and approve the above estimate.

# REVISED ESTIMATE FOR BARBED WIRE ON OLD BOUNDARY WALL AT NIT, KKR

SR. NO.	DSR Item	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	5.2.2	Providing & laying Reinforcedment cement concrete in wall (any thickness) including attached pilasters, buttesses, plinth and string courses, fillets, coloumns, pillars, piers, abutments, posts and struts etc upto floor five level excluding the cost of centering, shuttering,finishing and reinforcement.				
		1:1.5:3 ( 1cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	25.00	Cum	2351.35	58783.75
2	5.14	Centering and shuttering including strutting, propping etc.and removal of form for :				
	5.14.6	Columns, pillars, Piers, Abutments posts and struts.	250.00	Sqm	135.80	33950.00
3	5.29.3	Reinforcement for RCC work including straightening, cutting, bending, binding and placing in position and binding all complete.				
		Cold Twisted bars.	2500.00	Kg	21.85	54625.00
4	10.32.2	Steel work welded in built up section/ framed work including cutting, hosting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
		In grating, frames, guard bar, ladders, railings, brackets, gates & similar works	4842.00	KG	29.15	141144.30
5	13.81.3	Applying priming coat				
		With ready mix red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron/ steel works	100.00	Sqm	8.75	875.00



**Item No. 7.7 To consider and approve provision of Grills etc. at 1<sup>st</sup> and 2<sup>nd</sup> floor in New Girls Hostel (200 Seaters)**

In the new Girls Hostel (200 Seaters), there is no provision of MS Grills in the 1<sup>st</sup> and 2<sup>nd</sup> storey portion due to which the inmates of the hostel feel insecure. It is, therefore, proposed to provide MS grills at first and second floors of the building on the same pattern as provided at ground floor from safety point of view. Also, it has been felt necessary to build 01 no. ACC shed adjacent to kitchen for the purpose of cooking chapattis, etc. NBCC has submitted an estimate amounting to Rs. 2.92 lacs for this work and the same was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. Funds are available under the head, 'Construction of Additional New Girls Hostel (200 seaters)'. The cost estimates have been indicated from Page 54 to 55.

The Building & Works Committee may consider and approve the above estimate.



# REVISED ESTIMATE FOR GRILL WORK IN GIRLS HOSTEL AT NIT, KKR

SR. NO.	DSR Item	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	2.6.1	Earth work in surface excavation over areas exceeding 30 cm in depth 1.5m in width as well as 10 Sq.m. on plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m, surplus disposed earth to be leveled and neatly dressed.				
	a)	All kinds of soil	20.00	Cum	91.50	1830.00
2	2.26	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 upto 50m and lift upto 1.5m.	15.00	Cum	30.25	453.75
3	2.28	Supply & filling in plinth with jamuna sand under floors including, watering ramming consolidating and dressing complete.	10.00	Cum	213.30	2133.00
4	4.5.6	Providing & laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plinth level.				
		1:3:6 ( 1cement : 3 Coarse sand : 6 graded stone aggregate 40mm nominal size).	8.00	Cum	1549.15	12393.20
5	6.1	Brick work with FPS bricks of class designation 75 in foundation and plinth in:				
	6.1.12	Cement mortar 1 : 6 ( 1 cement : 6 coarse sand).	10.00	Cum	1478.40	14784.00
6	6.18	Half brick masonry with bricks of class designation 75 in foundation and plinth in:				
	6.18.4	Cement mortar 1 : 4 ( 1 cement : 4 coarse sand).	50.00	Sqm	174.85	8742.50



**Item No. 7.8 To consider and approve the demolition of one block of scooter stand for extension of Mech. Engg. Block.**

The Building & Works Committee approved the work of extension of Mech. Engg. Block at NIT Kurukshetra in its 5<sup>th</sup> meeting held on 21.2.2006 vide Item No. 5.2 as the department was facing hardship due to shortage of space. The above work is under progress and the funds were obtained from TEQIP grant. During the process of extension, an existing block of scooter stand was required to be demolished for making space available for the proposed extension. It is pertinent to mention that the said block of scooter stand was earlier converted to a temporary canteen and was later on abandoned due to introduction of modern canteens on the campus.

The Building & Works Committee may note and approve the above action.

**Item No. 7.9 To consider and approve the construction of boundary wall around community park on West side of DB-1 & DA-10.**

In the Institute township there are three community parks situated in the residential area. These parks are extensively used by the children, ladies and the senior citizens living with their in-service wards. The Building & Works Committee initially approved the development of two parks vide Item No. 2.21 and the work has almost been completed. Now, it is proposed to provide low height boundary walls with MS grill a top around the third park which was earlier not developed. An estimate amounting to Rs. 3.78 lacs has been submitted by NBCC for this work and the same was approved by the Chairman, Building & Works Committee in anticipation of approval of Building & Works Committee. Expenditure will be met out from the savings of the funds already received from GOI for the development of two community parks as stated above. The cost estimates have been indicated on Pages 58 to 59.

The Building & Works Committee may consider and approve the above estimate.

# Construction of Boundary Wall for New Park at NIT, KKR

Sr. no.	DSR Item	Description	QTY	UNIT	RATE	AMOUNT
1	2.8.1.	Earth work in excavation in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, with in a lead of 50 m.				
		All kinds of soil	80.00	Cum	93.55	7484.00
2	2.28	Supply & filling in plinth with Jamuna sand under floors including, watering, ramming consolidating and dressing complete.	15.00	Cum	213.30	3199.50
3	4.5.8	Providing & laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plinth level.				
		1:4:8 (1 Cement: 4 Coarse sand: 8 Graded Stone aggregate 40 mm nominal size)	15.00	Cum	1404.70	21070.50
4	4.25	Providing & laying damp proof course 40 mm thick with cement concrete 1:2:4 (1 Cement : 2 Coarse Sand: 4 graded stone aggregate 12.5 mm nominal size)	30.00	Sqm	103.80	3114.00
5	4.27	Applying a coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7 Kg per square meter on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in Kerosene oil.	30.00	Sqm	29.25	877.50
6	5.1.2	Providing & laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement All work upto plinth level				
		1:1.5:3 (1 cement : 1.5 Coarse Sand: 3 graded stone aggregate 20 mm	4.00	Cum	2116.20	8464.80
7	5.14.6	Centering & shuttering including strutting, propping etc. and removal of form for:-				
		Coloumns, Pillar, Piers, Abutments, Posts and Struts	25.00	Sqm	135.80	3395.00



**Item No.7.10 To consider and approve renovation of Administrative Block at NIT, Kurukshetra.**

The work was approved in the 5<sup>th</sup> meeting of Building & Works Committee at a rough cost estimate of Rs. 19.44 lacs plus Rs. 1.55 lacs (M/s NBCC charges @ 8%). The work included conversion of old SBI Building to Estate Section offices, renovation of Board Room, Director's & Registrar's offices. Accordingly, the work was awarded to M/s NBCC and renovation of Director's office and Board room have been completed. Meanwhile, it was decided to construct a New Administrative Block in the Institute. This New Administrative Block will have offices for Registrar & Estate Section and as such the work pertaining to provision of false ceiling in Registrar's office and conversion of old SBI Building to Estate section offices as proposed earlier were not required to be done. Instead, glazed tiling was provided in the offices of the following officers:

1. Dean (P&D)
2. Dean (EC &EM)
3. Dean (Academic)
4. Chairman, Civil Engg. Department
5. Chairman, Mech. Engg. Department
6. Chairman, Elect. Engg. Department
7. Chairman, Electronics Engg. Department
8. Chairman, Physics Department
9. Chairman, Mathematics Department
10. Chairman, Humanities & Social Sciences Department
11. Chairman, Chemistry Department
12. Registrar
13. Chief Warden
14. Prof. I/C (Estate & Const)
15. Prof. I/C (Academic)

The Chairman, Building & Works Committee approved the above work in anticipation of Building & Works Committee and the work will be done out of existing funds. The expenditure incurred for glazed tiling of two Nos. Chairmen offices (Physics & Humanities) was met up from the savings of 'Renovation of Old Library Building' and 'Extension of Mechanical Engg. Lab.' while the expenditure for the remaining was incurred out of the TEQIP grant.

It is, therefore, requested that the Building & Works Committee may note and approve the above action.