

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE - 247 667



Minutes of the Emergent Meeting of the Building & Works Committee held on 12th August 2011 at 03.00 p.m. in the Board Room of the Institute.

The following were present:

- | | |
|---|--------------------|
| 1. Prof. J.D.Sharma, Director(Acting) | -Chairman |
| 2. Prof. Akhil Upadhyaya. Actg. Chairman, E&W | - Member |
| 3. Er. H.K. Upreti, S.E., Uttarakhand PWD | - Member |
| 4. Er. M.C.Gupta, D.G.M., UPCL, Roorkee | - Member |
| 5. Prof. S.C. Sharma, Mechanical & Industrial Engineering Department, IIT Roorkee | - Member |
| 6. Prof. Pradeep Bhargava, Department of Civil Engg. | - Member |
| 7. Prof. S.P.Srivastava, Department of Elect. Engineering | - Member |
| 8. Er. Salek Chand, Superintending Engineer | - Member |
| 9. Prof. Pradeep Kumar, Dean, Finance & Planning | - Special Invitee |
| 10. Prof. Surendra Kumar, Chairman, Coordination Committee, GNEC | - Special Invitee |
| 11. Prof. S.P. Gupta, Dean, Greater Noida Extension Centre | - Special Invitee |
| 12.Lt. Col. (Retd) A.K. Srivastava, Registrar | - Member Secretary |

The Chairman extended a hearty welcome to the members of the Building & Works Committee.

The Chairman, thanked of Prof. S.C. Saxena, Ex-Director and recorded his appreciation for their valuable contribution in the chairing of the meetings of the B&WC.

Deliberations:

The items on the Agenda were discussed and the deliberations/ recommendations are summarized as under:

Item No. 27.1: To confirm the minutes of the 26th meeting held on 27.06.2011.

Having received no comments, the minutes of the above meeting as recorded and circulated, were confirmed.

Item No. 27.2 To receive a report on the action taken to implement the decisions of the 26th meeting of the Building & Works Committee held on 27.06.2011

Actions taken on the minutes of the above meetings, as given on page 2 of the agenda were noted.

Item No. 27.3: To consider the preliminary estimate of Rs. 48.61 crore submitted by the NBCC for Phase-II of the Greater Noida Extension Centre (GNEC).

The B&WC considered the preliminary estimate submitted by the National Buildings Construction Corporation Ltd. (NBCC) for Phase-II of the Greater Noida Extension Centre (GNEC). The B&WC recommended that the work be assigned to the NBCC at the estimated cost of Rs.48.61 crores (**Appendix 'A'**). The issue be placed before the Finance Committee and the Board of Governors for according expenditure sanction and administrative approval.

Item No. 27.4: To consider the preliminary estimate of Rs. 10.70 crore submitted by the NBCC for the construction of multistoried A-Category residences (21 nos) at the Saharanpur Campus.

The B&WC considered the preliminary estimate submitted by the National Buildings Construction Corporation Ltd. (NBCC) for the construction of multistoried A-Category residences (21 nos) at Saharanpur Campus. The B&WC recommended that the work be assigned to the NBCC at the estimated cost of Rs.10.70 crores (**Appendix 'B'**). The issue be placed before the Finance Committee and the Board of Governors for according expenditure sanction and administrative approval.

Item No. 27.5: To consider the construction of 02 nos. overhead water tanks each of 500 kilolitres capacity at Roorkee campus.

The B&WC considered the preliminary estimate submitted by the U.P.Rajkiya Nirman Nigam Ltd. for construction of 02 nos. overhead water tanks each of 500 kilolitres capacity at Roorkee Campus. The B&WC recommended that the work be assigned to the U.P.Rajkiya Nirman Nigam Ltd. at the estimated cost of Rs.188.02 lacs (**Appendix 'C'**). The issue be placed before the Finance Committee and the Board of Governors for according expenditure sanction and administrative approval.

The meeting ended with a vote of thanks of the Chair.



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(भारत सरकार का उद्यम)
NATIONAL BUILDINGS CONSTRUCTION CORPORATION LIMITED
(A Government of India Enterprise)

An IS/ISO 9001
Company
(For Consultancy &
Project Management Division)

OFFICE OF THE SBG-DELHI

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NBCC:SGM:SBG-Delhi:IIT-Roorkee:GNEC:2011/959

09th August 2011

The Superintending Engineer

IIT-Roorkee

Roorkee

Uttarakhand

Sub: Construction of GNEC Phase-II work

Dear Sir,

We are very much thankful to you for showing the trust in NBCC by awarding the construction of GNEC Phase II work vide your letter No.E&W/GNEC/408 dated 04.08.2011.

As desired, we are enclosing herewith a preliminary estimate amounting to Rs.4916.00 Lacs for the subject work for your kind perusal. It is requested that the estimate may kindly be approved so that further necessary action for tendering, detailed planning & commencement of work may be taken by NBCC.

Thanking You

Yours Faithfully


9/8/11

(NEELESH SHAH)
SR. GENERAL MANAGER
(SBG-DELHI)

Encl: As above

PRELIMINARY ESTIMATE

(Based on PAR-2007)

DATED : AUGUST 08, 2011

NAME OF WORK:

PROPOSED I.I.T ROORKEE EXTENSION CENTRE
ON PLOT NO. 20 , AT SECTOR -K,P -02 , GREATER
NOIDA , PHASE-II



ABSTRACT OF COST

Proposed I.I.T Roorkee Extension Centere , Greater Noida , Phase-II.

S.No.	Building	Total	
		Area	Cost
1	Academic Block - Convention Center-(Ph-II) + Basement - (Annexure-B)	4324.68 + 635.00	168698741.59
2	Residence Accomodation (Ph-II) - (Annexure-D)	2820.00	58984781.94
3	Other Building Expenses not covered in PAR- (Annexure-L)		91826667.00
	Sub Total building Cost-----I		319510190.53
4	Development of Site & Others Works not included in PAR 2007 - (Annexure-G)		58229147.68
5	Additional Facility for Existing Academic Building & Facullty Hostel - (Annexure-R)		5715000.00
	Sub Total (-----II		63944147.68
6	Green Building Features (GRIHA) @ 10% on building cost (S. No.1 & 2) -----III		22768352.35
7	Landscaping @ 10% on building cost (S.No.1 & 2) for Street furniture, murals & landscaps related construction including pavement & paving.-----IV		22768352.35
	Sub Total (I+II+III+IV)-----V		428991042.91
	Contingencies @ 3% of V-----VI		12869731.29
	Total (V+VI) -----VII		441860774.20
	Add Agency Charges @ 10%-----VIII		44186077.42
	Grand Total (VII+VIII)-----IX		486046851.62
		SAY	4861.00 Lacs

Annexure'A'

Detail of Area - Convention Center- Ph-II

Description	No.	L	B	Area
Ground floor				
Audi	1.00	27.23	27.23	741.47 M ²
Din.Hall	1.00	24.57	26.00	638.82 M ²
toilets	1.00	12.13	3.50	42.46 M ²
car parking	1.00	32.38	22.62	732.44 M ²
	1.00	6.60	4.31	28.45 M ²
	1.00	6.60	4.31	28.45 M ²
Rear S/C	1.00	11.64	4.23	49.24 M ²
				2261.33 M ²
Less S/C	1.00	8.23	2.73	22.47 M ²
			A	2238.86 M²
First floor				
Audi side	1.00	27.16	3.23	87.73 M ²
	1.00	24.73	3.23	79.88 M ²
AHU - mid	0.50	5.55	5.55	15.40 M ²
lobby	2.00	2.95	2.31	13.63 M ²
window side	3.00	4.27	1.50	19.22 M ²
	1.00	2.10	1.50	3.15 M ²
	1.00	9.26	0.60	5.56 M ²
Proj. pillars along window	12.00	0.60	0.23	1.66 M ²
Foyer- stair case	1.00	9.86	1.87	18.44 M ²
meeting Rm	1.00	24.57	26.00	638.82 M ²
	1.00	12.13	3.50	42.46 M ²
window side	3.00	4.27	1.50	19.22 M ²
	1.00	2.10	1.50	3.15 M ²
			B	948.32 M²
Second floor				
Audi side	1.00	27.16	3.23	87.73 M ²
	1.00	24.73	3.23	79.88 M ²
AHU - mid	0.50	5.55	5.55	15.40 M ²

Description	No.	L	B	Area
lobby	2.00	2.95	2.31	13.63 M ²
window side	3.00	4.27	1.50	19.22 M ²
	1.00	2.10	1.50	3.15 M ²
Proj. pillars along window	12.00	0.60	0.23	1.66 M ²
meeting Rm	1.00	24.57	26.00	638.82 M ²
	1.00	12.13	3.50	42.46 M ²
window side	3.00	4.27	1.50	19.22 M ²
	1.00	2.10	1.50	3.15 M ²
			C	924.32 M ²
Total				4111.50 M²
Ramp	2.00	33.00	3.23	213.18 M ²
				4324.68

CONVENTION CENTER (RCC Framed Structure)

Annexure "B"

		Type of Building	Office			
		Total Area	4324.68 sqm.	No. of Storey G +2		
		Ground Floor Area	2238.86 sqm.			
S.No.	Item	Unit	Rate / Unit	Nos.	Area	Total Cost
1	RCC framed structure upto 6 storeys with 3.35 mt. Floor ht. Convention Center GF-2238.86 M2 + FF-948.32 M2 +SF-924.32 M2 +Ramp- 213.18 M2 = 4324.68 (See detail of measurement at annexure-A)	sqm.	13200.00		4324.68	57085776.00
1a	Basement Floor- Floor ht. 3.35m. With normal water proofing treatment with bituminous felt-	sqm.	10452.00		635.00	6637020.00
2a	Every 0.3 mt. additional ht. of floor above normal floor ht. of 3.35 mt. Extra ht of Auditorium & Foyer	sqm.	150.00	1.00	4324.68	648702.00
		sqm.	150.00	3.83	424.48	243863.76
	Every 0.3 mt. additional ht. of basement floor above normal floor ht. of 3.35 mt.	sqm.	1274.00	2.17	635.00	1755508.30
2b	Every 0.3 mt. higher plinth over normal plinth height of 0.60 mt. (on GF area only)	sqm.	150.00	3.00	838.58	377361.00
3	Resisting Earthquake forces	sqm.	630.00		4324.68	2724548.40
4	Pile foundation upto a depth of 15m (GF Area -2238.86 + Ramp 213.18)=2452.04	sqm.	6470.00		2452.04	15864698.80
5	Fire fighting - Automatic Fire Alam System	sqm.	300.00		4324.68	1297404.00
6	Fire fighting - with sprinkler system	sqm.	450.00		4324.68	1946106.00
7	Larger modules over 35 Sq. mt.	sqm.	990.00		4324.68	4281433.20
	Building Cost (S.no. 1 to 2)	A				66748231.06
	Building Cost (S.no. 3 to 7)	B				26114190.40
8	Internal Water Supply & Sanitary Installations	% of A	4.00%			2669929.24
9	External service connections	% of A	5.00%			3337411.55
9	Internal electric installations	% of A	12.50%			8343528.88
10	Power wiring and plugs	% of A	4.00%			2669929.24
11	Telephone conduits	% of A	0.50%			333741.16
12	Central call bell System	% of A	1.00%			667482.31
13	Lightening conductors	% of A	0.50%			333741.16
14	Internet Conduits	% of A	0.50%			333741.16
15	Centralized Intercom System	% of A	1.00%			667482.31
16	Computer conduiting	% of A	0.50%			333741.16
17	Quality Assurance	% of A	1.00%			667482.31
	Total Cost including Services					113220631.94
	Add increase in Cost Index @ 49%					55478109.65
	Total Cost					168698741.59

RESIDENTIAL ACCOMODATION , PH-II (RCC Framed Structure)

Annexure "D"

S.No.	Item	Type of Building : Residential		Rate / Unit	Nos.	Area	Total Cost
		Total Area 2820.00	sqm.				
		Ground Floor Area 780.00	sqm.			No. of Storey S +6	
1	RCC framed structure upto 6 storeys with 2.90mt. Floor ht.	sqm.	9000.00			2040.00	18360000.00
1a	Over six storeys upto nine storeys (6th & 7th floor)	sqm.	310.00			480.00	148800.00
2a	Every 0.3 mt. additional ht. of fl.above normal floor ht. of 2.90 mt.(ex. Stilt)	sqm.	150.00		1.10	2040.00	336600.00
2b	Stilt portion of a multi storey RCC structure (upto height of 3.35mtr.)	sqm.	5421.00			780.00	4228380.00
3	Resisting Earthquake forces	sqm.	630.00			2820.00	1776600.00
4	Pile foundation upto a depth of 15m	sqm.	6470.00			780.00	5046600.00
6	Fire fighting - Automatic Fire Alarm System	sqm.	300.00			2820.00	846000.00
6	Fire fighting - with sprinkler system	sqm.	450.00			2820.00	1269000.00
	Building Cost (S.no. 1 to 2b)	A					23073780.00
	Building Cost (S.no. 3 to 7)	B					8938200.00
8	Internal Water Supply & Sanitary Installations	% of A	12.00%				2768853.60
9	External service connections	% of A	5.00%				1153689.00
9	Internal electric installations	% of A	12.50%				2884222.50
10	Lightening conductors (5 to 8 storeys building)	% of A	0.33%				76143.47
11	Telephone conduits	% of A	0.50%				115368.90
12	Centralized Intercom System	% of A	1.00%				230737.80
13	Computer conduiting	% of A	0.50%				115368.90
14	Quality Assurance	% of A	1.00%				230737.80
	Total Cost including Services						39587101.97
	Add increase in Cost Index @ 49%						19397679.97
	Total Cost						58984781.94

Annexure " G "

Development of Site & Others Works not included in PAR 2007

Total Area 41490.53 sqm.

Development area in Phase - II 29420.39 sqm.

S. No.	Items	Unit	Rate in Rs.	Quantity		Cost in Rs.
				Total	Phase II	Total
1	Levelling	sqm.	55.00		29420.40	1618122.00
2	Under ground water tank	liters	9.00		250000.00	2250000.00
2a	OH water tanks (3 x 10000=30000 liters)	liters	9.00		30000.00	270000.00
3	Internal roads and paths	sqm.	83.00		29420.40	2441893.20
4	Sewer	sqm.	63.00		29420.40	1853485.20
5	Distribution lines 100 mm dia and below for filter water supply	sqm.	46		29420.40	1353338.40
6	Peripheral grid 150 mm to 300 mm dia pipes for filter water supply	sqm.	35		29420.40	1029714.00
7	Unfiltered Water Supply Distribution lines	sqm.	27		29420.40	794350.80
8	Storm water drains	sqm.	50		29420.40	1471020.00
9	Horticulture operations	sqm.	47		29420.40	1382758.80
10	Street lighting with HPSV lamps	sqm.	95		29420.40	2794938.00
	Sub Total 1 to 10					17259620.40
	Add 49% Cost Index on item 1 to 10					8457214.00
	Sub Total 1 to 10 including Cost Index ----- A					25716834.40
11	Earth Filling					7500000.00
12	Water Treatment - (Annexure-H)	LS				2325000.00
13	Rain Water harvesting - (Annexure-I)	LS		2		700000.00
14	Sewer Treatment Plant - (Annexure-P)	LS		1		12025000.00
15	Boundary wall -(Annexure-Q)	LS				7349293.05
16	External electrification - (Annexure-J)	LS				2052788.00
17	Tubewell & Ancillaries	Each		1		300000.00
18	Hot water supply & return in shaft-15mm GI pipe (2 x 500mtr)	RM	105.85	1000.00		105850.00
19	Recycled water pipe (500 + 100+50)	RM	105.85	650.00		68802.50
	Sub Total 11 to 19 ----- B					32426733.55
	Add increase in cost index on S.no 18 &19-----C					85579.73
	Total Cost (A + B + C) for Phase-II					58229147.68

Water Treatment Plant

Annexure " H"

S.No.	Description	Nos.	Rate in Rs	Amount in Rs
		Total		Total
1	Hydropneumatic System	1	1125000	1125000
2	Filter	3	375000	1125000
3	Chemical Dosser	2	125000	62500
4	Supply pumps	2	25000	12500
	Total			2325000

Rain Water Harvesting

Annexure "I"

S.No.	Description of Item	Unit	Quantity	Rate in Rs	Cost in Rs
			Phase II		Phase II
1	Recharge Wells	Each	2	350000	700000

External Electrification

Annexure "J"

S. No.	Description	Unit	Quantity		Rate Rs. Lacs	Rate Rs.	Amount		Phase-II
			Total	Phase I			Total	Phase I	
1	MV Panels								
	Residence	No.	1		2.3500	235000	235000		235000
2	MV Cables (1.1KV, PVC insulated, steel strip armoured, aluminium conductor)								
	3.5c 300 sqmm AYFY	Meter	600	400	0.0125	1250	750000	500000	250000
	3.5c 240 sqmm AYFY	Meter	200	150	0.0105	1050	210000	157500	52500
	3.5c 185 sqmm AYFY	Meter	500	350	0.0100	1000	500000	350000	150000
	3.5c 70 sqmm AYFY	Meter	20	0	0.0040	400	8000		8000
	3.5c 50 sqmm AYFY	Meter	125	75	0.0030	300	37500	22500	15000
	3.5c 35 sqmm AYFY	Meter	25	0	0.0026	260	6500		6500
	4c 25 sqmm AYFY	Meter	75	50	0.0022	220	16500	11000	5500
2	Feeder Pillar (Form 3 steel fabricated, IP 55, Outdoor type)								
	FP1	No.	1	1	1.5900	159000	159000	159000	0
	FP2	No.	1		1.5900	159000	159000		159000
3	Miscellaneous								
	Special External Lights	LS	1	1	7.5000	750000	750000	450000	300000
	Rising Mains (air insulated, aluminium conductor, IP42, powder coated)	LS	1	1	5.4000	540000	540000	300000	240000
	TOTAL						3371500	1950000	1421500

add increase in cost (196.4-136% CI) 60.40 / 136 X 100 = 44.41% 631,288

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Annexure "L"

Other Building Expenses

S.No.	Description	Cost in Rs Phase-II
1	AC (Split / Window) / central AC - (Annexure "M")	14828020.00
2	Richer Specification - (Annexure "N")	2733212.00
3	Space Frame -	4584660.00
4	Para Gola	120000.00
5	Ph-II 13 passenger lift (Convention center-1 , Residence -2 , Auditotium-1)= 4 Nos	8800000.00
6	Acoustic &Furniture - (Annexure "O")	36130775.00

S.No.	Description	Cost in Rs Phase-II
7	Kitchen exhaust by mechanical means & Fresh air supply by air washers for convention centre	1500000.00
8	Solar Heatrs for (Flat Plate Collector)	
a	Residence - Unit 20 @ Rs. 6500/- Each user	130000.00
9	Solar Lamps in Land scape Area - 100 Nos @ 35000/- Each (23 W lamp)	3500000.00
10	Kitchen Equipment in :	
a	Convention center	1000000.00
11	Campus Security System -(2 CCTV- 50 camera's & PA system)	1000000.00
12	Wi Fi- System / IT / Server Etc.	17500000.00
	Total Cost	91826667.00

Annexure "R"

Additional Facility for Existing Academic Building & Faculty Hostel

S.No.	Description	Qty	Cost in Rs Phase-II
1	Civil, Electrical & Plumbing Work	L.S.	1000000.00
2	Laundry Equipmrent	L.S.	1000000.00
3	Ventilation System for Faculty Hostel (Toilet & Kitchen)	L.S.	1500000.00
4	Development & Horticulture Work on the Outside Road & Parking (Bus & Car)	L.S.	1500000.00
5	Faculty Hostel-user 110@Rs.6500/-each user		715000.00
Total Cost			5715000.00

Air Conditioning- Split / Window

Annexure "M"

S.No.	Description	Unit	Area	
			Phase II	
1a	Convention center - Split	Sqm.	2000.00	
	In Meeting Rooms & Dinning Hall			
	Cost of Window / Split A.C @ Rs 20000 / Ton			4304000.00
	For S. No. 1 @1Ton/100 sqft.			
1b	Auditorium - Central / AC	Sqm	2060.00	
	For S. No. 1b @1Ton/145sqft.			
	cost for central A/C @ Rs.70000 / Ton			10524020.00
TOTAL COST				14828020.00

Richer Specification

Annexure "N"

Frameless shutter & structural Glazing

S.No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
				Phase II		
1	MR	P & F frameless door with 12mm heat streghened, toughened glass	Sqm.	100.00	5500.00	550000.00
2	MR	Structural Glazing	Sqm.	200.00	7200.00	1440000.00
						1990000.00

Water Proofing - basement

S.No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
				Phase II		
		Basement - CC & IC				
1	22.1	Kota water proofing Horizontal surface	Sqm.	635.00	630.00	400050.00
	22.2	Kota water proofing vertical surface	Sqm.	510.00	710.00	362100.00
						762150.00
2		Less for bitumen felt	Sqm.	1145.00	230.00	263350.00
						498800.00

a Frameless shutter & structural Glazing 1990000.00

b Water Proofing - Basement 498800.00

Add 49% increase in Cost index 244412.00
i.e on item no b

2733212.00

Furniture & Acoustic Treatment

Annexure "O"

S. No.	Description	Unit	Quantity	Rate	Amount
			Phase II	Rs.	Phase II
1	Acoustic Treatment of Auditorium including providing motorized stage curtain , light bars , SS Hand rail etc.	Sqm.	602.65	13500.00	8135775.00
b	public address system	L.S			350000.00
c	sound system	L.S			1200000.00
d	lighting system	L.S			600000.00
2	Wooden flooring-25mm wooden	Sqm	60	7000.00	420000.00
	planking-teak wood				
3	Chairs for auditorium	Nos.	600	5000.00	3000000.00
	100+500=600				
4	Meeting Interior @ 15000 / sq.m.	Sqm.	1270	15000.00	19050000.00
5	Carpet in Audi	Sqm	550	2500.00	1375000.00
6	Dinning Hall Furniture-Dinning Tables , Chairs , LCD TV ,Corner table etc.				
a	Dining Hall				2000000.00
			Total		36130775.00

FINISHING SCHEDULE (PHASE - II)

A.	CONVENTION CENTRE	FLOORING	WALLS (Internal)	WALLS (External)	CEILING	FALSE CEILING
1	ENT. LOBBY	GRANITE 20MM	ACRYLIC EMULSION	SAND STONE + TEXTURE PAINT		GYP. BOARD+ ARMSTRONG
2	KITCHEN	VITRIFIED TILES	CERAMIC TILES+OBD		OBD	NONE
3	DINNING HALL	KOTA STONE +20% MARBLE	CERAMIC TILES+OBD			GYP. BOARD+ ARMSTRONG
4	LIFT LOBBY	KOTA STONE +20% MARBLE	GRANITE +OBD		OBD	NONE
5	STAIRCASE	KOTA STONE	OBD		OBD	NONE
6	MEETING ROOM	GRANITE 20MM	ACRYLIC EMULSION + PANELING + SOFT BOARD			GYP. BOARD+ ARMSTRONG
7	CORRIDOR	KOTA STONE +20% MARBLE	OBD			NONE
8	PUBLIC TOILET	GRANITE 20MM	CERAMIC TILES + OBD		OBD	NONE
9	LOUNGE AREA	GRANITE 20MM	ACRYLIC EMULSION			GYP. BOARD+ ARMSTRONG
10	ENGG. SERVICES	KOTA STONE	OBD		OBD	NONE
11	STAIRCASE RAILING	STAINLESS STEEL				
B.	AUDITORIUM	FLOORING	WALLS	WALLS (External)	CEILING	FALSE CEILING
1	ENT. LOBBY	GRANITE 20MM	ACRYLIC EMULSION	SAND STONE + TEXTURE PAINT		GYP. BOARD+ ARMSTRONG
2	FOYER	GRANITE 20MM	ACRYLIC EMULSION			ARMSTRONG
3	ENGG. SERVICES	C.C. / IRONITE	OBD		OBD	NONE
4	MAIN AUDI	C.C. WITH CARPET	PANELING WITH ANUTONE			PANELING WITH ANUTONE
5	SMALL AUDI.	C.C. WITH CARPET	PANELING WITH ANUTONE			PANELING WITH ANUTONE
6	CORRIDOR	KOTA STONE +20% MARBLE	ACRYLIC EMULSION			GYP. BOARD+ ARMSTRONG
7	PUBLIC TOILET	GRANITE 20MM	CERAMIC TILES			GYP. BOARD
8	STAIRCASE (MAIN)	GRANITE 20MM WITH GROOVE	ACRYLIC EMULSION		OBD	NONE
9	CHANGE ROOMS	KOTA				
10	PROJECTOR ROOM	KOTA				
11	STAGE	I.P.S. WITH TIMBER	ACRYLIC EMULSION			
12	STAIRCASE RAILING	STAINLESS STEEL				

C.	CENTRE PLAZA	FLOORING	WALLS	WALLS (External)	CEILING	FALSE CEILNG
1	PLAZA	ROUGH SAND STONE + KOTA STONE		SAND STONE + TEXTURE PAINT		
2	RAMP	ROUGH SAND STONE + KOTA STONE				
3	STAIRCASE	KOTA STONE				
4	STAIRCASE RAILING	BRICK WORCK + C. C. COPING				
F.	RESI. ACCODATION-II	FLOORING	WALLS		CEILING	FALSE CEILNG
1	LIVING ROOM	VITRIFIED TILES	OBD		OBD	NONE
2	BED ROOM	VITRIFIED TILES	OBD		OBD	NONE
3	KITCHEN	VITRIFIED TILES	CERAMIC TILES + OBD		OBD	NONE
4	TOILET	CERAMIC TILES	CERAMIC TILES + OBD		OBD	NONE
5	BALCONY	VITRIFIED TILES	OBD		OBD	NONE
6	STAIRCASE	KOTA STONE	OBD		OBD	NONE
7	LIFT LOBBY	KOTA STONE +20% MARBLE	GRANITE +OBD		OBD	NONE
8	PASSAGE	KOTA STONE +20% MARBLE	OBD		OBD	NONE
9	STAIRCASE RAILING	M.S.				
10	ENGG. SERVICES	KOTA STONE	OBD		OBD	NONE

Sewage Treatment Plant

Annexure "P"

S. No.	Description	Quantity	Rate in Rs.	Amount in Rs.
		Total		Total
1	Raw effluent sump with screens and transfer pumps	1	1170000	1170000
2	Aeration tank with air blowers	1	2600000	2600000
3	Plate settlers housed in RCC tank	1	1690000	1690000
4	Return sludge pumps	1	520000	520000
5	Sludge disposal pumps and mechanical drying unit	1	2600000	2600000
6	Chlorine contact chamber	1	910000	910000
7	Effluent filtration system	1	1170000	1170000
8	Irrigation supply pumps with panel	1	520000	520000
9	All interconnecting pipes and valves	1	325000	325000
10	Related electrical works including control panel, wiring between pumps and panel, earthing, etc.	1	520000	520000
	Total			12025000

BOUNDARY WALL

Detail for 100M

Annexure "Q"

Sl. No.	Description	No.	L	B	D	Qty	Unit	Rate	Amount
1	2	3	4	5	6	7		8	9.00
1	Earth Work in Foundation	33.00	1.65	1.65	1.20	107.81			
		34.00	1.35	0.84	1.20	46.27			
						<u>154.08</u>	Cum	103.40	15931.87
2	PCC 1:5:10(1C:5C.S:10S/A)	33.00	1.65	1.65	0.08	7.19			
		34.00	1.35	0.84	0.08	3.08			
						<u>10.27</u>	Cum	2237.75	22981.69
3	Brick work 1:6 in Foundation	34.00	1.50	0.69	0.15	5.28			
		34.00	1.50	0.58	0.15	4.40			
		34.00	2.65	0.46	0.60	24.87			
		34.00	2.65	0.35	0.60	18.65			
		34.00	2.65	0.23	1.20	24.87			
						<u>78.07</u>	Cum	2121.75	165645.02
4	Back Filling								
	154.08-(10.27+43.86+24.67)					<u>75.28</u>	Cum	45.70	3440.30
5	RCC-M 25 (Footing,etc.)								
	footing	33.00	1.50	1.50	0.30	22.28			
	plinth beam	34.00	2.65	0.30	0.30	8.11			
	col.	33.00	0.35	0.23	3.20	8.50			
	tie beam	34.00	2.65	0.23	0.23	4.77			
						<u>43.66</u>	Cum	4147.40	181075.48
6	Brick work 1:6 in Superstructure	34.00	2.65	0.77	0.23	15.96			

						<u>15.96</u>	Cum	2357.40	37624.10
7	Reinforcement- TMT bars 125kg / cum	43.65			125.00	<u>5456.25</u> <u>5456.25</u>	Kg	42.70	232981.88
8	Plaster 1:6 (C:6 F.Sand)-12mm	68.00	3.00	1.00		204.00			
		34.00	3.00	0.25		25.50			
						<u>229.50</u>	Sqm	67.55	15502.73
9	Steel work 70kg / mtr.	100.00			70.00	<u>7000.00</u> <u>7000.00</u>	Kg	51.20	358400.00
10	CC 1:2:4 for fixing	200.00	0.23	0.23	0.30	<u>3.17</u> <u>3.17</u>	Cum	3257.45	10326.12
							C/O		1043909.19

Sl. No.	Description	No.	L	B	D	Qty	Unit	Rate	Amount
1	2	3	4	5	6	7		8	9.00
								B/F	1043909.19
11	Painting	1.00	100.00	1.00		<u>100.00</u> <u>100.00</u>	Sqm	33.25	3325.00
									1047234.19
12	Exterior -texture finish same as plaster					<u>229.50</u>	Sqm	301.42	69175.89
									1116410.08
						Add Cost Index 49 %			513144.75
									1629554.83
						Unit Rate			16295.55

Total length	241.00+210.00								451.00
									<u>451.00</u>
Cost of Boundary Wall	451.00			16295.55					7349293.05

ITEM NO : / ANAL

T.S

P& APPLYING ACRYLIC AGGREGATE
TEXTURED (SEMI ROUGH STARRY
FINISH) WALL COATING IN PIGMENT...

DETAIL OF 1 SQM

MATERIAL
ACRYLIC AGGREGATE

2.50 KG

85.00

212.50

APPLICATION CHARGES I/C
SCAFFOLDING & LABOUR ETC.

MARKER
VERIFICATION

47.00

ADD 1% W.C

259.50

2.595

ADD 15% CP & OH

262.10

39.315

COST PER SQM

301.42

ग्राहक की खुशी के लिए प्रतिबद्ध
Committed to Customers' Delight

नेशनल बिल्डिंग्स कन्स्ट्रक्शन कॉर्पोरेशन लिमिटेड
(भारत सरकार का उद्यम)
NATIONAL BUILDINGS CONSTRUCTION CORPORATION LIMITED
(A Government of India Enterprise)

An IS/ISO 9001
Company
(For Consultancy &
Project Management Divis

OFFICE OF THE SBG-DELHI
NBCC Place, Bhisham Pitamah Marg,
Pragati Vihar, New Delhi-110003
Tele-fax : 24369644
E-mail : delhi.nbcc@nic.in, delhi.nbcc@gmail.com

NO.NBCC/SGM/SBG-DELHI/IIT ROORKEE/2011/843

July 11, 2011

The Superintending Engineer
Indian Institute of Technology
Roorkee - 247 667
Uttarakhand, India

Subject: Construction of proposed staff accommodation at Saharanpur campus of
IIT Roorkee

Dear Sir,

This has a reference to your letter No.E&W/1001/IE.dated 8th July 2011.

As desired, enclosed please find herewith Preliminary estimate amounting to
Rs.10.70 Crores along with conceptual drawings for construction of 21, Category V
quarters at Saharanpur campus of IIT, Roorkee.

Kindly convey the approval at the earliest for further needful at our end.

Thanking you,

Yours faithfully,



(NEELESH SHAH)
SR. GENERAL MANAGER
SBG-DELHI

Encl: As above

**SUMMARY OF COST OF PROPOSED STAFF ACCOMMODATION
AT SAHARANPUR CAMPUS OF IIT ROORKEE**

S. NO.	DESCRIPTION	RATE	AMOUNT (Rs. In Lacs)
1	TOTAL COST OF WORK AS PER DETAILS ENCLOSED (MAINLY BASED ON PAR - 2007)		944.03
2	ADD FOR CONTINGENCIES @3%	3%	28.32
	TOTAL:		972.35
3	ADD NBCC AGENCY CHARGES @ 10%	10%	97.24
	GRAND TOTAL:		1,069.59
	SAY	Rs.	10.70 Crores

**ESTIMATE FOR STAFF ACCOMMODATION, AT IIT ROORKEE, SAHARAN PUR
CAMPUS
BASED ON PAR 2007, REPRINT 2010**

S. No.	Item	Area in Sqm.	Rate (in Rs.)	Amount (in Rs.)	Reference
A.	BUILDING WORKS				
1.0	CIVIL WORKS				
1.1	R.C.C.FRAMED STRUCTURE				50% of GF Area of 546 Sqm.
	Stilt	273.00			
	First floor	546.00			
	Second Floor	546.00			
	Third Floor	546.00			
	Fourth Floor	546.00			
	Fifth Floor	546.00			
	Sixth Floor	546.00			
	Seventh Floor	546.00			
	Total Built up Area	4,095.00			
1.1.2	COST OF CONSTRUCTION FOR FLOOR HEIGHT 2.9 M	4,095.00	9,000.00	36,855,000.00	PAR 2007/1.1.2
1.2	EXTRA FOR				
1.2.1	Every additional storey over six storeys (two additional storeys)	1,092.00	310.00	338,520.00	PAR 2007/1.2.1
1.2.3	Every 0.3 mt. additional height of floor above normal floor height of 3.35m/2.90mts (3.20m against 2.9m)	4,368.00	150.00	655,200.00	PAR 2007/1.2.2
1.2.8	Extra for Resisting Earthquake forces	4,368.00	630.00	2,751,840.00	PAR 2007/1.2.8
1.2.9	R.C.C. Raft foundation (ground floor only)	546.00	3,560.00	1,943,760.00	PAR 2007/1.2.9
	Total for extras:			5,689,320.00	
A	TOTAL COST OF CIVIL WORKS AS PER PAR (1.1.1+1.2)			42,544,320.00	(A)
2.9	FIRE FIGHTING				
2.9.1	With wet riser system	4,368.00	300.00	1,310,400.00	PAR 2007/2.9.1
2.10	FIRE ALARM SYSTEM				
2.10.1	Manual Fire alarm System	4,368.00	155.00	677,040.00	PAR 2007/2.10.1
	COST OF FIRE FIGHTING & FIRE ALARM WORKS:			1,987,440.00	(B)

S. No.	Item	Area in Sqm.	Rate (in Rs.)	Amount (in Rs.)	Reference
3.0	SERVICES				
	PLUMBING				
3.1	Internal Water Supply and Sanitary Installations	12% of (A)	12%	5,105,318.40	PAR 2007/3.1
3.2	External Service connections	5% of (A)	5%	2,127,216.00	PAR 2007/3.2
	ELECTRICAL WORKS				
3.3	Internal Electrical Installations	12.5% of (A)	12.50%	5,318,040.00	PAR 2007/3.3
	EXTRA FOR:				
3.6.3	Lightening conductor 5 to 8 storeyed Building	0.33% of (A)	0.33%	140,396.26	PAR 2007/3.6.3.2
3.6.4	Extra for Telephone Conduits	0.5% of (A)	0.50%	212,721.60	PAR 2007/3.6.4
3.6.5	Centralised Intercom System	1% of (A)	1.00%	425,443.20	PAR 2007/3.6.5
3.6.7	Quality Assurance	1% of (A)	1.00%	425,443.20	
	COST OF SERVICES:			13,754,578.66	(C')
4.0	LIFTS				
4.1	Passenger lifts 13 passengers, 1 no (Gr+7) Speed 1m/sec	2.00	2,070,000.00	4,140,000.00	PAR 2007 4.1.3
	COST OF LIFTS:			4,140,000.00	(D)
5.0	WATER TANKS				
5.1	Over Head Water Tank without independent staging	49300.00	9.00	443,700.00	PAR 2007/5.1
5.5	Unumpderground Sump	30000.00	9.00	270,000.00	
	COST OF WATER TANKS/ SUMP			713,700.00	(E)
6.0	DEVELOPMENT OF SITE				
	Total Plot Area	2500.00	SqM		
6.1	Levelling	2500.00	55.00	137,500.00	PAR 2007/6.1
6.2	Internal Roads and Paths	2500.00	83.00	207,500.00	PAR 2007/6.2
6.3	Sewer	2500.00	63.00	157,500.00	PAR 2007/6.3
6.4	Water Supply	2500.00	46.00	115,000.00	PAR 2007/6.4.1
6.4.1	Distribution Lines 100mm dia & below				
6.4.3	Unfilter Water Supply distribution lines	2500.00	27.00	67,500.00	PAR 2007/6.4.3
6.5	Storm Water Drains	2500.00	50.00	125,000.00	PAR 2007/6.5
6.6	Horticulture operations	2500.00	47.00	117,500.00	PAR 2007/6.6
6.7	Street lighting				
6.7.2	with HPMV lamps	2500.00	95.00	237,500.00	PAR 2007/6.7.3
6.7.4	Exit sign board l/c electric signage	2500.00	50.00	125,000.00	PAR 2007/6.7.4
	COST OF SITE DEVELOPMENT WORKS:			1,290,000.00	(F)

S. No.	Item	Area in Sqm.	Rate (in Rs.)	Amount (in Rs.)	Reference
B	TOTAL COST OF WORK AS PER PAR (A+B+C+D+E+F)			64,430,038.66	(G)
B.1	ADD ESCALATION OVER CPWD PAR 2007 (Cost Index 131)	31%		19,973,311.98	(H)
	COST OF WORK INCL. COST INDEX FACTOR (G+H):			84,403,350.64	(I)
C	COSTS NOT INCLUDED IN PAR				
C.1	Electrical panels			6,000,000.00	
C.2	Solar water heating system (2100 lpd-3 Nos.)			4,000,000.00	
	COST OF NON PAR WORKS:			10,000,000.00	(J)
	TOTAL COST OF PROPOSED STAFF ACCOMMODATION (I+J):		Rs	94,403,350.64	
	SAY		Rs	944.03	Lacs

कार्य एवं सम्पदा
भारतीय प्रौद्योगिकी संस्थान
रुड़की

सं० का० एवं सं०/ 309¹³/जल आपूर्ति

दिनांक: जुलाई 29, 2011

अधीक्षण अभियन्ता

सूचित करना है कि गोविन्द भवन के ऊपर ओवर हैड टैंक जिसकी क्षमता 275 किलो लीटर है की दीवालो से चारो तरफ से पानी लीक करता है। खतरे को देखते हुए टैंक का आधा हिस्सा ही भरा जाता है। इस क्षेत्र में हिल व्यू अपार्टमेन्ट के पास एक ओवर हैड 525 कि० लीटर क्षमता का है। जिससे जलापूर्ति हिल व्यू अपार्टमेन्ट, जी०पी हॉस्टल, एम०आर०सी० हॉस्टल, बायोटेक, आमोद कुंज, नीति नगर इत्यादि क्षेत्रों में किया जाता है। हिल व्यू अपार्टमेन्ट के ए,बी,सी डी ब्लाक के आवासों में सीधी जलापूर्ति की भी व्यवस्था है। ग्रीष्म काल में जलापूर्ति की खपत ज्यादा होने की वजह से अपार्टमेन्ट के पांचवी से सातवी मंजिल पर सीधा जलापूर्ति सम्भव नहीं हो पाता तथा ओवर हैड टैंक खाली हो जाता है।

कॉटले भवन के ऊपर 275 किलो लीटर क्षमता का ओवर हैड टैंक जो कि लगभग 55 वर्ष पुराना है भी क्षतिग्रस्त हो गया है। इन क्षेत्र में दो सात मंजिले छात्रावास एवं आवास तथा गंगा भवन व राजेन्द्र भवन छात्रावास पूर्व से ही हैं।

अतः उक्त स्थितियों को दृष्टिगत रखते हुए आपसे अनुरोध है 500 किलो लीटर क्षमता के दो ओवर हैड टैंक निम्न दो स्थानों पर बनाए जाने आवश्यकीय हो गए हैं:-

1. आमोद कुंज नलकूप के समीप
2. सामुदायिक केन्द्र के क्षेत्र में

अतः आपसे अनुरोध है कि उक्त दो स्थानों पर ओवर हैड टैंक बनाने हेतु अग्रिम आवश्यक कार्यवाही करने का कष्ट करें।

अधीक्षण सम्पदा एवं कार्य
जो कि UPRNN द्वारा 500 किलो लीटर का एक सहायक अधिशासी अभियन्ता-प्रथम
एर डैक नवारापुर के पास में बनाया गया है जो कि UPRNN से
के आगमन के लिए है।
अधीक्षण अभियन्ता (500 लीटर क्षमता)
को मिली है
- 32 -
29/7/11
SE
29/7/2011
11/8/11



उ०प्र० राजकीय निर्माण निगम लि० हरिद्वार इकाई

(राज्य सरकार का उपक्रम)

कार्यालय :

इकाई प्रभारी

हरिद्वार इकाई

I.S.O. 9001:2000
CERTIFIED

कार्यालय

स्पोर्ट्स स्टेडियम परिसर,
भल्ला कालेज मैदान, हरिद्वार
दूरभाष नं० 01334-220485

पत्रांक : 1164 /रा०नि०नि०/एच-213()/2011

दिनांक : 08/08/2011

सेवा में,

संस्थान् अभियन्ता

आई०आई०टी०

रूड़की (हरिद्वार)

विषय—500 किलोलीटर क्षमता के 02 नं० ओवर हैड टैंक के निर्माण कार्य के सम्बन्ध में।

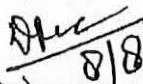
महोदय,

उपरोक्त विषयक आपके पत्र के अनुपालन में आई०आई०टी० परिसर रूड़की में प्रत्येक 500 किलोलीटर क्षमता के 02 ओवर हैड टैंक बनाये जाने प्रस्तावित है। जिनका आगणन रू० 188.02 लाख का गठित कर प्रशासनिक एवं वित्तीय स्वीकृति हेतु प्रेषित किया जा रहा है।

सधन्यवाद

संलग्नक— उपरोक्तानुसार

भवदीय


8/8/11
अपर परियोजना प्रबन्धक

NAME OF WORK : CONSTRUCTION OF TWO NOS OVER
HEAD TANK OF 500 K.L. CAPACITY EACH AT I.I.T
CAMPUS ROORKEE IN DISTRICT HARIDWAR (U.K)

S.No	PARTICULAR OF ITEM	QUANTITY	RATE	AMOUNT
1	Construction of R.C.C over head tank 500 K.L to 20.00 m standing complete	500.00 K.L	17.75 per ltr	Rs 88.75 Lacs
2	Less 5 % due to U.P.R.N.N LTD working		(-)	Rs 4.44 Lacs Rs 84.31 Lacs
3	Add 11.5 % U.P.R.N.N ltd centage charges including architecture & structural drawing		(+)	Rs 9.70 Lacs Rs 94.01 Lacs
	Cost of two nos 500 K.L O.H.T	2 x 94.01		Rs 188.02 Lacs


A.R.E
U.P.R.N.N . L.T.D


PROJECT MANAGER
U.P.R.N.N . L.T.D



भारत सरकार

केन्द्रीय लोक निर्माण विभाग

कार्यालय मुख्य अभियन्ता (उ०अं०-११)

केन्द्रीय भवन "तृतीय तल", अलीगंज, लखनऊ

पत्रांक - 23(24)/अ०अभि० (यो०)/उ०अं०-११/5219-28

दिनांक: 17.06.11

कार्यालय ज्ञापन

विषय : उत्तरी अंचल-११ के अन्तर्गत विभिन्न स्थानों के मूल्य सूचकांक।

दिल्ली कुर्सी क्षेत्रफल दर 2007 (आधार : 100) के सापेक्ष निम्नलिखित स्थानों के मूल्य सूचकांक मुख्य अभियन्ता द्वारा सहर्ष अनुमोदित कर दिया गया है। विभिन्न स्थानों के नाम, इन स्थानों के मूल्य सूचकांक तथा मूल्य सूचकांक लागू होने की तिथि निम्नानुसार है। ये मूल्य सूचकांक दिल्ली कुर्सी क्षेत्रफल दर, 2007 के अनुसार दिनांक 01.10.2007 पर 100 आधार मानकर निकाला गया है:-

क्रम सं०	स्थानों के नाम	अनुमोदित मूल्य सूचकांक	मूल्य सूचकांक लागू होने की तिथि
1.	देहरादून	138	15-05-2011
2.	मसूरी	150	15-05-2011
3.	चकराता	158	15-05-2011
4.	रुड़की	131	15-05-2011
5.	हरिद्वार/ऋषिकेश	132	15-05-2011
6.	सहारनपुर/सरसावा	130	15-05-2011
7.	गोपेश्वर/पीपलकोठी/चमोली	170	15-05-2011
8.	औली	193	15-05-2011
9.	श्रीनगर (गढ़वाल)	159	15-05-2011
10.	माही का डांडा	185	15-05-2011
11.	ग्वालदम	180	15-05-2011
12.	बद्रीनाथ/माना	200	15-05-2011
13.	सुनील जोशीमढ़	187	15-05-2011
14.	गोचर	165	15-05-2011
15.	पौड़ी	161	15-05-2011
16.	चिन्थालीरोड़	168	15-05-2011
17.	मातली/उत्तरकाशी	172	15-05-2011
18.	न्यू टिहरी	160	15-05-2011

टिप्पणी:- उपर्युक्त सारणी में उल्लिखित सभी स्थान उत्तराखण्ड में है।