



Er. H.P. Singh
Executive Engineer

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ

PTU PUNJAB
TECHNICAL
UNIVERSITY

Estd. Under Punjab Technical University Act, 1986
(Punjab Act No. 1 of 1997)

Ref. No. PTU/EE/1932

Dated 14.10.2014

Sh. D.L. Sharma, President,
Vardhman Spg. & Gen. Mills Ltd.,
Chandigarh Road, Ludhiana.

Sh. S.L. Kaushal,
Chief Architect, Punjab (Retd),
2865, Sector 42-C, Chandigarh.

Dr. A. P. Singh,
Dean (P&D),
Punjab Technical University, Jalandhar.

Sh. A. N. Chowdhry (Special Invitee),
3-B, Jyoti Nagar,
Jalandhar.

Er. Jaswant Singh Pabla (Sp. Invitee),
(Electrical Expert)
House No. 2631, Sector-79,
Mohali.

Sh. Inderjit Kumar (Special Invitee),
(PH Experts)
House No. 116, Phase 3B/I,
S.A.S. Nagar, Mohali.

Sb. Amrit Sagar Mittal
CMD, Sonalika Tractors Ltd,
Hoshiarpur.

Er. A. K. Prabhakar,
OSD to Vice Chancellor,
Punjab Technical University, Jalandhar.

The Director,
Department of Technical Education, Punjab,
Plot No. 1, Sector-36A, Chandigarh.

The Registrar,
Punjab Technical University,
Jalandhar.

Dr. Prabhjot Kaur (Special Invitee),
Officiating Director Mohali Campus,
C102B, Phase-7 Industrial Area, Mohali.

Sh. Rajiv Aggarwal, Architect
M/s Archigroup Architects,
A-14, Sector-15,
Noida -201301.

Sub : Construction of new campuses of Punjab Technical University – 44th meeting of the Standing Building Construction Committee.


Dear Sir/Madam,

44th meeting of the Standing Building Construction Committee shall be held under the Chairmanship of Dr. R. S. Khandpur, Director General, PGSC (Retd) at 1130 hours on 20.10.2014 at PTU's Mohali campus at C-102/B, Industrial Area, Phase VII, (Sector-119), Mohali – 160 059 (Punjab). Agenda and Agenda note for the meeting are enclosed.

You are requested to make it convenient to attend the meeting.

Thanking you

Yours Sincerely,


(H. P. Singh)

Executive Engineer

Copy to : Dr. R. S. Khandpur, DG, PGSC (Retd), Science House, H. No. 2901, Phase 7,
(Sector 61), Mohali.

eINDIA 2010
AWARDS
Recognising excellence in ICT

Award of the Year

ICT Enabled
University of the Year

Open & Distance Learning
Initiative of the Year

Punjab Technical University Jalandhar

Kapurthala Campus : Jalandhar-Kapurthala Highway, Kapurthala-144601

Mobile : 9478098017 www.ptu.ac.in E-Mail : xen@ptu.ac.in

PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

Sub : Agenda for the 44th meeting of the Standing Building Construction Committee.

- Item No. 44.1 : To confirm the Minutes of 43rd meeting of Standing Building Construction Committee held on 01.08.2014.
- Item No. 44.2 : Action taken on various items discussed during previous meeting of Standing Building Construction Committee.
- Item No. 44.3 : To discuss and approve the manufacturers/specifications for acoustic treatment for proposed auditorium at main campus, Kapurthala.
- Item No. 44.4 : To discuss and approve rough cost estimate for proposed auditorium at main campus, Kapurthala.
- Item No. 44.5 : To discuss and approve the flooring patterns for circulation area and VIP Banquet area of auditorium proposed to be constructed at main campus, Kapurthala.
- Item No. 44.6 : To discuss and approve the revised estimate for construction of boundary wall of Punjab Institute of Technology, Mansa.
- Item No. 44.7 : To discuss and approve the design basis reports submitted by the Architect for Structure, Electrical and Public Health works in respect of Punjab Institute of Technology, Arniwala, Fazilka.
- Item No. 44.8 : Any other point with the permission of the Chair.



PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

Agenda Note for the 44th meeting of the Standing Building Construction Committee.

Item No. 44.1 : To confirm the Minutes of 43rd meeting of Standing Building Construction Committee held on 01.08.2014.

The minutes of 43rd meeting of Standing Building Construction Committee held on 01.08.2014 were circulated on 06.08.2014. The minutes circulated are to be confirmed.

Item No. 44.2 : Action taken on various items discussed during previous meeting of Standing Building Construction Committee.

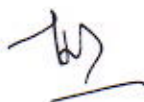
Actions taken on various items discussed during previous meeting of Standing Building Construction Committee are as under:

- The manufacturers/specifications for acoustic treatment for proposed auditorium at main campus, Kapurthala are to be presented in the present meeting for discussions and approval.
- The flooring patterns for circulation area and VIP Banquet hall of auditorium proposed to be constructed at main campus, Kapurthala are to be presented by the Architect in the present meeting for discussions and approval.
- The comments offered by the committee for Stage lighting system, Sound reinforcement system and audio video system have been incorporated in the design/scheme and the detailed estimate is being presented in this meeting.

Item No. 44.3: To discuss and approve the manufacturers/specifications for acoustic treatment for the proposed auditorium at main campus, Kapurthala.

In 43rd meeting of the committee, it was decided that all the materials proposed to be used for acoustic treatment should be preferably manufactured in India. Accordingly, the Architect will be making the presentation on type of the materials proposed to be used and their cost comparison.

The matter is placed before the Committee for discussions and approval please.



Item No. 44.4: To discuss and approve rough cost estimate for proposed auditorium at main campus, Kapurthala.

In 42nd meeting of the committee, the rough cost estimate for the proposed auditorium was discussed under agenda item No. 42.3 (copy of the estimate discussed in 42nd meeting is placed at Annexure-A). After detailed discussions, the committee agreed for the cost except for specialized items such as Acoustic treatment, Stage lighting system, Sound reinforcement system and audio video system. The Architect will be making presentations on detailed estimate for these items.

The matter is placed before the Committee for discussions and approval please.

Item No. 44.5 : To discuss and approve the flooring patterns for circulation area and VIP Banquet area of auditorium proposed to be constructed at main campus, Kapurthala.

In 43rd meeting of the committee, it was decided that some more flooring patterns for circulation area and VIP Banquet area of the proposed auditorium may be presented by Architect so that appropriate decision is taken in this regard. Accordingly, the Architect will be presenting some more flooring patterns.

The matter is placed before the Committee for discussions and approval please.

Item No. 44.6 : To discuss and approve the revised estimate for construction of boundary wall of Punjab Institute of Technology, Mansa.

In 30th meeting (Agenda item No. 30.7) of the Standing Building Construction Committee, estimate for construction of boundary wall of Punjab Institute of Technology, Mansa for an amount of Rs. 300.0 lacs was approved. This estimate was based upon a tentative design prepared by the Architect. Additionally, at the time of approval of this estimate, the length of the boundary wall was considered as 4224 metre. However, as per site conditions, the actual length of the boundary wall is about 4870 metre. It has been confirmed by the Architect that by mistake length of boundary wall for one site was not included in the approved estimate. There has been substantial increase in size of the foundations from that considered at the time of preparation of original estimate. Moreover, there are some increase in the quantities as per site conditions also. By considering all these factors, the revised estimated cost for the boundary wall works out to be Rs. 409.27 lacs i.e. increase in cost by 36.42%. In addition to this, price escalation as per clause 10cc of CPWD already approved in building committee and BOG meetings, shall be payable to the contractor.

This matter was also discussed in 42nd meeting of the committee and it was decided that works upto award value of the works is got executed from the contractor to avoid any litigation with the contractor and contract is foreclosed by considering the facts that Punjab Cabinet has approved constitution of new technical university at Bathinda and district Mansa will fall under the jurisdiction of new university and it was opinioned by the committee that new university may have different requirements for this campus.

The matter has again discussed at University level and by considering the facts that final decision is still to be taken by Punjab Govt. on new University and to avoid trespasses, theft and misuse/encroachment of the campus area, boundary wall works are got completed from the existing contractor.

The matter is placed before the Committee for discussions and approval please.

Item No. 44.7 : **To discuss and approve the design basis reports submitted by the Architect for Structure, Electrical and Public Health works in respect of Punjab Institute of Technology, Arniwala, Fazilka.**

The Architect has submitted design basis reports of Structure, Electrical and Public Health works in respect of Punjab Institute of Technology, Arniwala, Fazilka (Annexure-B). The same will be presented by the Architect in the meeting.

The matter is placed before the Committee for discussions and approval of the reports.

Item No. 44.8 : **Any other point with the permission of the Chair.**



ANNEXURE-A

PREAMBLE TO PRELIMINARY ESTIMATE

1. **State:** PUNJAB

2. **Name of Work**

2.1. Construction of Punjab Technical University, Kapurthala.

2.2. This preliminary estimate of probable cost of Rs. 217,596,646/- (Rs. Twenty one crore, seventy five lacs, ninty six thousand, six hundred & forty six only only) excluding contingencies, cost of external development and departmental charges has been framed by Archigroup Architects (Regd.)

3. **History**

3.1. This preliminary estimate covers the probable cost of construction of Convention Centre. This scope of work was finalized in the meeting held on 7th May 2014 at Chandigarh. This estimate is submitted for accord of Administrative approval and expenditure sanction by the competent authority.

4. **Design & Scope:**

4.1. The proposed buildings shall be constructed as RCC structure. The present estimate consists of:

4.1.1. Convention center: - The block is G+1 consisting of 800 capacity auditorium, 2 green rooms, 1 control room, 1 no. VIP lounge with kitchen, 1 no. VIP suites, Student's verandah with kitchen, 2 offices, toilets etc.

5. **Civil works:** Most of the items to be executed in these buildings are already included in the provisions in the PAR – CPWD for year 2012.

6. The salient features of various provisions are as under:

6.1. **Building:** - The building shall be of R.C.C. framed structure with raft and combined footing.

6.2. **Foundation:** - As per structural design based on soil investigation.

6.3. **Flooring :-**

Auditorium	Carpet
Stage	Wooden flooring
VIP lounge, suites, lobby, corridor	Granite
Staircase	Granite
Student's verandah	Kota stone
Toilets	Vitrified tiles

6.4. **Doors and windows: -**

6.4.1. Door frames shall be of Aluminium with pre-laminated shutter. Doors of auditorium shall be acoustic doors. Windows shall be of Aluminium sections & shutter as per architectural drawings. Structural glazing has been provided at places in the elevation. Fitting shall be steel or aluminum as per architect's requirements.

6.5. **Staircase Railing:** Stainless steel railing has been provided.

6.6. Toilets: Floor vitrified tiles and dado up to door level height with glazed ceramic tiles, vitreous china WC, washbasin and urinals.

6.7. Roofing: - Terrace shall have brick bat coba treatment and acoustical false ceiling shall be provided in auditorium as per architectural drawing & gypsum false ceiling in VIP lounge & suites.

6.8. Internal Finishing: cement plaster, oil bound distemper and acrylic emulsion paint and plastic emulsion with putty, doors shall be enamel/ spirit polish finish. Walls of auditorium will have acoustic paneling.

6.9. External Finishing: Weather proof paint, structural glazing, Stone cladding as per architectural drawings.

6.10. Furniture: Chairs of auditorium has been included in this estimate.

7. Services:

7.1. Following provisions have been made in this preliminary estimate.

7.1.1. Fire prevention system as/ NBC have been provided. Sprinklers system has been considered

7.1.2. Internal Electrical Installation, telephone data, networking, power plugs etc.

7.1.3. Video presentation & sound reinforcement system has been considered in this estimate.

8. Exclusions:

8.1. No provisions have been made in the preliminary estimate for interior decorations, façade lighting, for external development works like roads, rain water harvesting bulk services such as tube wells, pumps, extension of lines, HT- substation equipments, LT distribution system. DG sets, external lighting, IBMS and CCTV access control system etc.

9. Rates

9.1. Rates are based on CPWD PAR of 1.10.2012. For the items not covered under PAR 2007, rates have been derived from market rate analysis, PTU-III, Kaputhala approved estimates and CSR of Punjab.

10. T & P : No special T&P is required all other shall be arranged by the contractor.

11. Land : Available.

12. Method : By contract after call of tenders.

SUMMARY- PRELIMINARY ESTIMATE				
S. No.	Building / Component	Plinth Area (Sqm)	Total Cost of building in Rs	Reference
1	2	3	4	5
1	Convention centre	3,746.70	150,760,218.60	Ref. Detailed calculation
2	Other Building Expenses(Richer Specifications)		45,537,006.40	Ref. Annexure 1
3	AC cost		21,299,421.06	Ref. Annexure 2
4	Total (1+2+3)		217,596,646.06	
5	SAY		217,596,646	
Twenty one crore, seventy five lacs, ninety six thousand, six hundred & forty six only				

Auditorium Type of Building - Assembly Total Plinth Area - 3,746.70 sq.m Plinth area on ground floor 3,178.00 sq.m Total covered area- 3,821.50 sq.m No. of storeys- G+1 Floor height 13.50 m Refer Drg No. PTU-IV/PRE/AC/D/1-01 to 09							
Sr.No.	Description	Unit	Qty	Nos	Rate	Am't	Explanation
1	2	3	4	5	6	7 = (4*5*6)	8
1	R.C.C. FRAMED STRUCTURE						
1.1	RCC framed structure upto 2 storeys						
1.1.1	Floor height 3.35m						
a.	Floors	sqm	3,746.70	1.0	23,500.00	88,047,450.00	
1.2	Extra for						
1.2.1	Every 0.3m additional height of floor above normal floor height of 3.35m.						
a.	Ceiling at 12.9m	sqm	430.69	31.83	270.00	3,701,780.55	Ceiling height at different levels. Refer dwg no. PTU-IV/PRE/AC/D/1-07 & 08
b.	Ceiling at 11.4m	sqm	264.23	26.83	270.00	1,914,346.35	
c.	Ceiling at 6.3m	sqm	300.29	9.83	270.00	797,269.95	
d.	Ceiling at 6m	sqm	838.30	8.83	270.00	1,522,345.50	
e.	Ceiling at 5.3m	sqm	327.95	6.50	270.00	575,552.25	
f.	Ceiling at 4.2m	sqm	274.53	2.83	270.00	210,015.45	
g.	Ceiling at 4m	sqm	607.36	2.17	270.00	355,305.60	
1.2.3	Every 0.3m deeper foundation over normal depth of 1.20m (on G.F. area only)	sqm	3,178.00	4.33	270.00	3,718,260.00	
1.2.4	Every 0.3m higher plinth over normal plinth height of 0.6 mt. (on G.F. area only)						
a.	Plinth at 0.6m	sqm	1,274.00	1.00	270.00	343,980.00	
b.	Plinth at 1.6m	sqm	567.70	3.33	270.00	510,930.00	
1.2.5	Resisting Earthquake forces	sqm	3,746.70	1.00	1,140.00	4,271,238.00	
1.2.6	Large modules over 35 sq m	sqm	1,169.60	1.00	1,500.00	1,754,400.00	Auditorium & lounges
1.2.7	Fire fighting						
1.2.7.1	With wet riser system	sqm	3,746.70		500.00	1,873,350.00	
1.2.7.2	With sprinkler system	sqm	3,178.00		750.00	2,383,500.00	
1.2.8	Fire Alarm						
1.2.8.1	Automatic Fire alarm system	sqm	3,746.70		500.00	1,873,350.00	
	Total A (1.1.1.a + 1.2.1) =					97,124,065.65	
	Total B (1.2.3 to 1.2.8) =					16,728,008.00	
2	SERVICES						
2.1	Internal water supply & sanitary installations	% of A			@ 15%	14,568,609.85	
2.2	External service connections	% of A			@ 5%	4,856,203.28	
2.3	Internal Electrical Installation	% of A			@ 12.5%	12,140,508.21	
2.4	Extras for						
2.4.1	Data network conduits	% of A			@ 0.5%	485,620.33	
2.4.2	Power wiring & plugs	% of A			@ 4%	3,884,962.63	
2.4.3	Telephone conduits	% of A			@ 0.5%	485,620.33	
2.5	Lightning conductors						
2.5.1	Upto 4 storeyed building	% of A			@ 0.5%	485,620.33	
	Total C (2.1 to 2.5.1) =					36,907,144.95	
	Grand Total E = A+B+C					150,780,218.60	

OTHER BUILDING EXPENSES

Annexure-1

S. No.	Description	Unit	Quantity	Rate	Amount (INR)	Explanation
1	2	3	4	5	6	7
Richter Specifications						
1	Wooden Flooring	sqm	273.72	11,860.00	3,246,319.20	On stage
2	Carpet -	sqm	935.00	2,058.61	1,924,800.35	Rates derived from preliminary estimate of auditorium submitted in 2007
3	Chairs	No.	800.00	5,800.00	4,640,000.00	
4	False ceiling & paneling					
4.1	Acoustic tiles for lobby (600x600) 0.9 NRC	sqm	306.60	2,282.24	699,734.78	
4.2	Acoustic ceiling for hall	sqm	1,208.72	3,847.44	4,650,477.68	Market rate analysis of Anutone ceiling for 0.9 & 0.7 NRC
4.3	Wall paneling	sqm	1,058.00	5,318.99	5,625,375.42	
5	PA system				1,250,000.00	
6	Stage lighting				3,000,000.00	Rates considered from acoustic report of auditorium submitted in 2007
7	Sound reinforcement system				10,000,000.00	
8	Video presentation system				10,500,000.00	
	Total				45,537,006.40	

Cost of Airconditioning						Annexure-2
S.No.	Building	Unit	Area	Refrigeration Provided @ 1 TR/10sq.ft.	Cost @ 95,000/TR	
1	2	3	4	5	6	
	AC areas	Sqm.	2,082.91	224.20	21,299,421.08	