

Er. H.P. Singh Executive Engineer

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ



Estd. Under Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997)

Rel. No. - - 1827

Daled Tur Land

The Director,

Department of Technical Education and Industrial Training, Punjab, Plot No. 1, Sector-36A, Chandigarh.

Sh. Amrit Sagar Mittal CMD.

Sonalika Tractors Ltd, Hoshiarpur.

Dr. Nachhattar Singh,

Dean (P&D),

Punjab Technical University, Jalandhar.

Dr. Buta Singh (Special Invitee),

Dean (Academics),

Punjab Technical University, Jalandhar.

Sh. S.L. Kaushal,

Chief Architect, Punjab (Retd), 2865, Sector 42-C, Chandigarh.

Ms. Kamna Raj Agrawal,

L-240, Model Town,

Jalandhar.

Dr. H. S. Bains,

Registrar,

Punjab Technical University, Jalandhar.

Dr. A. P. Singh (Special Invitee),

Dean (Student Affairs),

Punjab Technical University, Jalandhar.

Sub: Construction of new campuses of Punjab Technical University - 30th meeting of the Standing Building Construction Committee.

Dear Sir/Madam,

30th meeting of the Standing Building Construction Committee shall be held under the Chairmanship of Dr. R. S. Khandpur, Director General, PGSC at 1500 hours on 19.12.2011 in his office at SCO 60-61, Sector 34-A, Chandigarh. Agenda and Agenda note for the meeting are enclosed.

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

Thanking you

Yours Sincerely,

14/12/11 (H. P. Singh)

Executive Engineer

Copy to :

i. ii. Dr. R. S. Khandpur, DG, PGSC, SCO 60-61, Sector 34-A, Chandigarh.

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

Noida -201301.

Recognising excellence in ICT Award of the Year

Punjab Technical University Jalandhar

Kapurihala Campus : Jalandhar-Kapurthala Highway, Post Bag No. 01, Kapurihala. Mobile: 9501109042 www.ptu.ac.in E-Mail: exeptu@gmail.com

PUNJAB TECHNICAL UNIVERSITY, JALANDHAR



Sub : Agenda for the 30th meeting of the Standing Building Construction Committee.

Item No. 30.1: To confirm the Minutes of 29th meeting of Standing Building Construction Committee held on 28.10.2011.

Item No. 30.2: Action taken on various items discussed during previous meetings of

Standing Building Construction Committee.

Item No. 30.3: To discuss and approve the requirements (Design briefs) of Mohali

campus, PIT Mansa and PITTTR Jalandhar.

Item No. 30.4; To review the tendering process of engagement of executing agency for

PIT Kapurthala.

Item No. 30.5: To discuss and approve the plans of buildings taken over from

CAPARO society and finishing schedule of these buildings.

Item No. 30.6; To discuss and approve rough cost estimates based upon plinth area

rates of CPWD of buildings taken over from CAPARO society.

Item No. 30.7: To discuss and approve the design scheme and estimate of boundary

wall of PIT Mansa.

Item No. 30.8: Construction of camp/site office at PIT Mansa and PIT Nandgarh.

Item No. 30.9 : Any other point with the permission of the Chair.

PUNJAB TECHNICAL UNIVERSITY, JALANDHAR



Agenda Note for the 30th meeting of the Standing Building Construction Committee.

Item No. 30.1: To confirm the Minutes of 29th meeting of Standing Building Construction Committee held on 28.10.2011.

The minutes of 29th meeting of Standing Building Construction Committee held on 28.10.2011 were circulated on 31.10.2011. No observation has been received from any of the members. The minutes circulated are to be confirmed.

Item No. 30.2: Action taken on various items discussed during previous meetings of Standing Building Construction Committee.

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

- The detailed designing for structure, HVAC, Electrical, Plumbing and Fire Fighting systems of two towers, one library and one seminar hall of proposed PIT at main campus, Kapurthala is in progress.
- Applications for one post of Assistant Executive Engineer and two posts of Assistant Engineer for Construction cell have been received and further action is being taken.
- ➢ It was also decided that a survey may be conducted for all categories of the employees to ascertain the requirements of staff quarters proposed to be constructed at main campus of the University. This work will only be planned if there is a sufficient requirement. Necessary action has been taken in this regard and survey is in progress.
- To take up the detailed planning and preparation of design/drawings by the Architect, it was decided that detailed requirements (design briefs) may be prepared by the University in respect of PIT Mansa, Mohali Campus, PITTTR Jalandhar, PIT Nandgarh. For preparation of the same, committees were constituted. Report by the committees have been submitted for PIT Mansa, Mohali Campus, PITTTR Jalandhar.
- For preparing planning of PITTTR Jalandhar, it was decided that a core team from the University will visit similar institutes established by various organizations to study the infrastructure, facilities etc. provided at these institutes so that 'a state of the art' institute can be established by PTU. A team consisting of Dean P&D, Dean Academics, XEN from PTU and Sh. Rajiv Agrawal Architect from Archi Group have visited Wipro's training centre at Bangalore and Infosys's Global Training centre at Mysore.



Item No. 30.3: To discuss and approve the requirements (Design briefs) of Mohali campus, PIT Mansa and PITTTR Jalandhar.

Committees constituted for preparation of requirements (Design briefs) for Mohali Campus, PIT Mansa, PITTTR Jalandhar have submitted their reports. The requirements (Design briefs) submitted are as under:

A. Moháli Campus:

1. Students Facilitation Centre:

This will house the following facilities:

- a. Assistant Registrar 1 No.
- b. 4 counters + 1 counter for reception,
- c. 5 touch screen computer in the hall,
- d. Waiting chairs for 50 students,
- e. Toilets (M & F), drinking water and coffee vending machine.

2. Incubation Centre:

This will have the following facilities:

- a. Director 1 No. + PA + 1 clerk
- b. Dean I No.
- c. Asstt. registrar I No.
- d. Clerks 2 No.
- e. Incubation centre for 30 students. Each to have a lockable cabin. These cabins to be included in one or more halls with one or two discussion spaces with attached toilets and pantries.
- f. Class rooms for 30
- g. Discussion rooms for 15-20
- h. Discussion room for 10-15
- Multipurpose hall for 200 including a lobby which can be used for exhibitions etc.
- Supporting toilets and pantries.

3. Foreign Language Cell:

This will have the following facilities:

- a. Class rooms 6 Nos. for 20 students each
- Total faculty rooms 12 Nos.(including the in-charge who will be an assistant professor)
- c. Related toilets and other facilities.

4. Training Institute:



This will have facilities for the following:

a. Administration and Academic functions:

- i. Class rooms 4 @ 30 students 2 classrooms with tiers and 2 classrooms with flat floor;
- ii. 2 small rooms attached to these for group works
- iii, Lobby areas (maye be 2 spaces) for tea/coffee
- iv. Computer lab @ 20-25 workstations
- v. Central e-library with computer terminals
- vi. Seminar hall for 60
- vii. Director with PA
- viii. Faculty rooms 10
 - ix. Visting faculty rooms 2
 - x. Administration and accounts

b. Residential / hostel functions:

- i. Single room accommodation with attached toilets 60 Nos.
- ii. Separate rooms for ladies and gents
- iii. 4-5 executive rooms
- iv. Reception with manager's room
- v. 2 VIP suite on ground floor
- vi. 1 gym and yoga room
- vii. Small area for barber and dhobi
- viii. Common room for carom, table tennis, TV, music etc.
- ix. Dining hall to be partition-able
- x. Dormitories for kitchen staff (2-3 no staff) and drivers (6 nos.). These may be provided on terrace.
- xi. 2 room house for warden of hostel
- xii. Outdoor games like badminton etc.
- xiii. Basement to be constructed for parking and services

After making provisions for all the above, the remaining permissible areas will be used for residential/hostel functions.

Following will also be considered while planning of the above :

- a. The library to be easily accessible from all sides,
- a. Plan a walk way around the site
- b. Should consider solar water heating for the hostels.

B. PITTTR Jalandhar:

i) Class rooms of capacity 40 persons - 08 Nos.

ii) Convention Hall of capacity 300 persons - 01 No.

iii) Meeting Hall of capacity 50 persons - 01 No.



- iv) Conference Hall of capacity 30 persons
 - o persons 01 No. ersons - 01 No.
- v) Board Room of capacity 30 persons

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vi) Director Office and supporting staff

- 01 No.
- vii) Faculty Rooms including visiting faculty

- 12 Nosa
- viii) Administrative Block for sitting of two Dy. Registrar and supporting staff.
- ix) * Hostels with Mess, Indoor Gymnasium, Recreation room, for stay of 300 persons, 250 rooms of single occupancy & 25 rooms of double occupancy may be planned.
- x) Reception
- Library (reference only) for the facilitation of the above strength and central
 e-library with computer terminals.
- xii) Computer Lab with 20-25 workstations.
- xiii) Parking in the basement Two-Tier parking may be explored.
- xiv) Service Area may be planned in the basement to the extent possible.
- xv) Mess and kitchen for hostels may be kept at the top floor/terrace. Terrace garden may also be planned.

C. PIT Mansa:

It has been approved that admission for 270 seats will be made in 10+1 at this Institute as per the following details, every year:

Non Medical - 90

Medical - 60

Vocational - 60

Commerce - 60

The total planning of this Institute will be done for all courses for 2620 students.

Priority 1:

- a) Boundary Wall
- b) Junior Science block for housing 10+1 & 10+2 students (540 nos.)
- c) Administrative Block having sitting arrangements for the following officers:
 - i) Director, one committee room and supporting staff.
 - Dean/ Academics with supporting staff.
 - iii) Dean/ Administration with supporting staff including Finance,Purchase etc.
 - iv) Dean/ R&D and consultancy with supporting staff.
 - v) Dean/Student Welfare

Priority II

Main campus of the Institute with all departments, library cum canteen and common facilities.

Priority [I]

Hostels, faculty accommodations and convention centre.

Standing Building committee may discuss and approve these requirements.

Item No. 30.4: To review the tendering process of engagement of executing agency for PIT Kapurthala.

In 27th meeting of the Standing Building Construction Committee held on 13.07.2011, it was decided (under Item No. 27.5) that Open tenders in two packet systems will be invited for engagement of contractors. Since, PIT Kapurthala works are to be executed on top priority and assembly elections are also expected early next year, invitation of pre-qualifications from the intending agencies may be considered. This will save lot of time as appointment of PMC consultant and technical evaluation of the contractors can be taken up simultaneously.

Item No. 30.5: To discuss and approve the plans of buildings taken over from CAPARO society and finishing schedule of these buildings.

In the building taken over from CAPARO society, part academic block with workshop, administrative block, canteen and two hostels have been partially constructed and further works have been abandoned. Architect will be presenting the building plans and finishing schedules of these buildings.

Finishing schedule proposed by the Architect is as under:

1. COLLEGE BUILDINGS

PUTTY

GRANITE TILES:
 All areas except toilets

KOTA STONE: Workshops

VITRIFIED TILES (NON SKID): Dado in Toilets

PLASTIC EMULSION WITH
 All Areas except in Ceilings

OBD WITH PUTTY
 Ceilings in all areas.

2. ADMINISTRATION AND LIBRARY

GRANITE TILES:
 All areas except toilets

VITRIFIED TILES (NON SKID): Toilets

GLAZED CERAMIC TILES
 Dado in Toilets

PLASTIC EMULSION WITH PUTTY: All areas except Ceiling

OBD WITH PUTTY Ceilings in all areas.



3. HOSTELS

VITRIFIED TILES (NON SKID): Toilets

GLAZED CERAMIC TILES
 Dado in Toilets

KOTA STONE: All areas except toilers.

OBD WITH PUTTY: All internal areas.

BLACK GRANITE COUNTERTOP: Kitchen

4. CANTEEN

VITRIFIED TILES (NON SKID); Toilets

GLAZED CERAMIC TILES
 Dado in Toilets

KOTA STONE: All areas except toilets.

OBD WITH PUTTY: All internal areas

BLACK GRANITE COUNTERTOP: Kitchen

5. EXTERNAL FINISH

Washed stone grit plaster
 Hostel buildings (as per elevation)

Weather Exterior paint All areas except Hostels building

6: DOORS AND WINDOWS

 WINDOWS 	Anodized aluminum with reflective
	single glass
 STRUCTRAL GLAZING 	Anodized aluminum with reflective
	glass (single/double as required)
 DOORS 	Aluminum Frames with laminated
	board shutters/ flush shutters

Committee may discuss and approve these plans and finishing schedule,

Item No. 30.6: To discuss and approve rough cost estimates based upon plinth area rates of CPWD of buildings taken over from CAPARO society.

In the building taken over from CAPARO society, part academic block with workshop, administrative block, canteen and two hostels have been partially constructed (foundations have been completed for these buildings) and further works have been abandoned. Architect has prepared rough cost estimate for completion of balance works of these buildings. The rough cost estimate is Rs. 2022.97 Lacs and the covered area is 9258 Sqm. Cost per Sft. works out to be Rs. 2031/- (Details placed below).

Committee may discuss and approve the rough cost estimate.

AND.

(8/1)

Item No. 30.7: To discuss and approve the design scheme and estimate of boundary wall of PIT Mansa.

Recently, an attempt has been made to encroach the land handed over to PTU at Mansa for establishment of Punjab Institute of Technology. The same has been removed with the help of local administration and presently, the total land is in the custody of PTU. To avoid such situations in future, it has been decided by PTU that boundary wall for the total site is constructed on top priority.

By looking at the quality of bricks and water available at Mansa, the Architect has proposed that Pre-cast RCC wall may be provided at this site. The Architect has provided the following options for the same:

S. No.	Proposed scheme	Estimated cost (In lacs of Rs)
1	Convention system	Rs. 295.84
2	Pre-fabricated panels for side Walls and RCC in front wall With grills	Rs. 281.53
3	Pre-fabricated panels for side Walls and hollow concrete blocks in place of bricks in front wall with grills	Rs. 278.12
4	Bricks replaced by hollow concrete blocks	Rs. 305.39
5	Bricks replaced by solid concrete blocks	Rs. 319.57

The details are placed below.

Committee is requested to discuss and approve the scheme and estimate for this work.

Item No. 30.8: Construction of camp/site office at PIT Mansa and PIT Nandgarh.

It has been planned that construction of boundary walls of PIT Mansa and PIT Nandgarh are to taken up on immediate basis. So, it has been decided that PTU should construct on camp/site office at both the locations having covered area of about 1000 Sqft. An amount of Rs. 14.50 lacs including external development for each location has been sanctioned for this work.

This is being brought to the kind notice of the Standing Building Construction Committee.

Item No. 30.9: Any other point with the permission of the Chair.

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PUNJAB INSTITUTE OF TECHNOLOGY PRELIMINARY COST ESTIMATE

SUMMARY- PRELIMINARY ESTIMATE

Builing / Component	Plinth Area (Sqm)	Cost in Rs	Reference
2	3	4	5
		··	
College Building	3,794.50	10,82,04,641.68	Ref. Annexure 1
Hostel	4,806.90	7,69,23,403.70	Ref. Annexure 2
Adminstration and Library	588.53	1,52,73,412.10	Ref. Annexure 3
Canteen	68.11	18,95,326.76	Ref. Annexure 4
Grand total	9,258.04	20,22,96,784	
	College Building Hostel Adminstration and Library Canteen	(Sqm) 2 3 College Building 3,794.50 Hostel 4,806.90 Adminstration and Library 588.53 Canteen 68.11	(Sqm) 2 3 4 College Building 3,794.50 10,82,04,641.68 Hostel 4,806.90 7,69,23,403.70 Adminstration and Library 588.53 1,52,73,412.10 Canteen 68.11 18,95,326.76





PUNJAB INSTITUTE OF TECHNOLOGY PRELIMINARY COST ESTIMATE

College Building

Annexure 1

Refer Drg No. PTU- III/APIT/PRE/AC/CB

Type of Building -College Total Plinth Area -3,794,50 sq.m Plinth Area On G. Floor -1,673.90 sq.m Total covered area-3,363.60 sq.m No. of storey-G + 2 Floor height(G.F.)-Floor height-(F.F.)&(S.F.) 3.40 m 3.60 m

Sr.No.	Description	Unit	Qty	Nos	Rate	Amt	Explanation
1	2	3	4	5	6	7 = (4*5*6)	8
						7 = (4 3 0)	ŏ
1	R.C.C. FRAMED STRUCTURE						
1.1	RCC framed structure upto six storeys						
1.1.1	Floor height 3.35m						
a.	Floors	sqm	3,794.50	10	42 000 00		
1.2	Extra for	oqiii	V,104.50	1.0	13,200.00	5,00,87,400.00	
	Every 0.3m additional height of floor above normal floor height of 3.35m.						
	Ground Floor	sqm	1,673.90	0.17	150.00	41,847.50	
	First & Second Floor	sqm	2,120.60	0.83	150.00	2,65,075.00	
1.2.3	Larger Module over 35 sqm	eam	3,794.50	10	000.00	07.55	
1.2.4	Fire fighting	p-(II)	J,734.3U	1.0	990.00	37,56,555.00	
	With wet riser system	sqm	3,794.50	1.0	700.00		
1.2.5	Fire Alarm	oqiii	1,784.50	1.0	300,00	11,38,350.00	
	Automatic fire alarm system	sqm	1,673.90	10	300.00	5 00 470 80	
	Total A (1.1.1.a + 1.2.1+1.2.2) =	0411	1,010.50	1.0	300.00	5,02,170.00	
	Total B (1.2.3 to 1.2.5) =					5,03,94,322.50	
			-			63,97,076.00	
2	SERVIÇES						
	Internal water supply & sanitary installations	% of A			@ 4%	20,15,772,90	
2.2	External service connections	% of A			@ 5%	25,19,716.13	
2.3	Internal Electrical installations	% of A			@ 12.5%	62,99,290.31	
	Internal Electrical installations for laboratories	% of A			@15%	75,59,148.38	
	Extra for						
	Power wiring & plugs	% of A			@ 4%	20,15,772.90	
	Lightning conductors					20,13,772.90	
а.	4 storeyed buildings	% of A			@ 0.33%	1,66,301.26	
2.5.3	Telephone conduits	% of A			@ 0.5%	2,51,971.61	
	Data network conduits	% of A			@ 0.5%	2,51,971.61	
	Total C =	% of A			@ 42.33%	2,10,79,945.10	
	Sub Total D = A+B+C				go	7,68,71,342.60	
- /	Add Cost Index (E =)				@ 49%	3,76,66,957.87	
0.0	TOTAL (F=D+E)				/	11,45,38,300.48	
2.6	Deductions for existing structure(G=)	sqm	3,363.6	1.0	1883.00*	63,33,658.80	
I	Grand Total (H=F-G)					10,82,04,641.68	

^{*} As adviced by the structural engineer





Hostels

Annexure 2

Type of Building -Total Plinth Area -Plinth Area On G. Floor -Total covered area-

Hostel 2,403,45 sq.m 781,99 sq.m 2,326,74 sq.m

Refer Drg No. PTU-III/APIT/PRE/AC/HB

No. of storey-Floor height

G+2 3.20 m

Sr.No	. Description	Unit	Qty	Nos	Rate	Amt	Explanatio
1	2	3	4	-			- Angelong and the second
			4	5	6	7 = (4*5*6)	8
4 .	R.C.C. FRAMED STRUCTURE						
1.	RCC framed structure upto six storeys						
1.1.1	Floor height 2.90 mt.						
8.	Floors	0.000	0.400.40				
1.2	Extra for	sqm	2,403.45	1.0	9,100.00	2,18,71,395.00	
	Every 0.3m additional height of floor above normal floor height of 2.90m.	sqm	781.99	1.00	150.00	1,17,298.50	
1.2.2	Fire tighting						
	With wet riser system	0000	0.400 :=				
1.2.3	Fire Alarm	sqm	2,403.45	1.0	300.00	7,21,035.00	
	Automatic fire alarm system	P.G.	704.65				
	Total A (1.1.1.a + 1.2.1) =	sqm	781.99	1.0	300.00	2,34,597.00	
	Total 8 (1.2,2 to 1.2.3) =					2,19,88,693.50	
			1			9,55,632.00	
2	SERVICES	-					
-	Internal water supply & senitary installations	% of A		1	@10%	21,98,869.35	
2.2	External service connections	% of A					
2.3	Internal Electrical installations	% of A			@ 5%	10,99,434.68	
2.5	Extra for	70 OI A		-	@ 12.5%	27,48,586.69	
2.5.2	Lightning conductors			_			
a. 4	4 storeyed buildings	% of A					
2.5.4	Data network conduits	% of A			@ 0.33%	72,562.69	
	Total C =	% of A			@ 0.5%	1,09,943.47	
5	Sub Total D = A+B+C	70 UI A			@ 28.33%	62,29,396.67	
1	Add Cost Index (E =)					2,91,73,722_37	
1	Total (D+E) =				@ 49%	1,42,95,123.98	
267	otal Cost For 2 Hostel Buildings(F=)					4,34,68,846.33	
270	Deductions of existing structures					8,69,37,692.66	
7 4 1	leaded of the control						
.7.1 H	lostel-1 (with existing first floor slab)	sgm	2,326.74 1	0	2421.00*	COOCUU	
.7.2 H	lostel-2 (with existing upto plinth level)		2,326.74 1			5633037.54	
Т	otal deductions(G=)	ospin .	1,020.14	.0	1883.00°	4381251,42	
Ģ	rand Total (H=F-G)					10014288.98	
						7,69,23,403.70	

^{&#}x27; As adviced by the structural engineer

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Administration & Library

Annexure 3

Refer Drg No. PTU-III/APIT/PRE/AC/AB

Type of Building - Total Plinth Area - Plinth Area On G. Floor - Total covered area-	College 588.53 248.18 521.51	sq.m sq.m sq.m
No. of storey- Floor height(G.F.)- Floor height-(F.F. double height) Mezzanine floor	G + 1 3.70 6.00 3.00	m m

Sr.N	Безсирцоп	Unit	Qty	Nos	Rate	Amt	Explanatio
- 1	2	3	4	-		16975343	exhiging
	1000 ==================================	-	4	5	6	7 = (4*5*6)	8
-	1 R.C.C. FRAMED STRUCTURE			+			
	1.1 RCC framed structure upto six sloreys						
1.1	1.1 Floor height 3.35m						
	a. Floors						
1	.2 Extra for	sqm	588.5	3 1.0	13,200.00	77,68,596.00	
	2.1 Every 0.3m additional height of Roor above normal floor height of 3.35m.					77,00,096.00	
1.2.1	.1 Ground Floor						
		sqm	248.18	1.17	150.00	43,431.50	
.2.1.	.2 First Floor (double height)					40,451.50	
		sqm	156.01	8.83	150.00	2.06,713,25	
1.2.	3 Larger Module over 35 sqm				0.0000000000000000000000000000000000000	2,00,110,20	
1.2.	4 Fire righting	mpa	588.53	1.0	990.00	5,82,644.70	
	With wet riser system					0,02,045,70	
1.2.	5 Fire Alarm	sqm	588.53	1.0	300.00	1,76,559.00	
	Automatic fire alarm system					1,70,008.00	
	Total A (1.1.1.a + 1.2.1+1.2.2) =	sqm	248.18	1.0	300.00	74,454.00	
	Total B (1.2.3 to 1.2.5) =					80,18,740.75	
						8,33,657.70	
_ 2	SERVICES					0,00,007.70	
2.1	I Bloomed						
	installations water supply & sanitary	% of A			@ 4%	3,20,749.63	
2.2	External service connections				2 .79	5,20,749.63	
2.3	Internal Electrical installations	% of A			@ 5%	4,00,937,04	
2.5	Extra for	% of A			@ 12.5%	10,02,342.59	
2.5.1	Power wiring & plugs					10,02,342.39	
2.5.2	Lightning conductors	% of A			@ 4%	3,20,749.63	
a.	4 storeyed buildings				G 172	5,20,749.63	
.5.3	Telephone conduits	% of A			@ 0.33%	26,461.84	
5.4	Data network conduits	% of A	-		@ 0.5%	40,093.70	
	Total C =	% of A			@ 0.5%	40,093.70	
	Sub Total D = A+B+C	% of A			@ 26.83%		
	Add Cost Index (E =)					21,51,428.14	
1	Total (F= D+E)				@ 49%	1,10,03,826.59	A A
26	Doduglions Form				E 4370	53,91,678.03	
2.0	Deductions for existing structure(G=)	sqm	521.5	0	2152.00	1,63,95,701.82	
_					2102.00	11,22,289.52	
_ l'	Grand Total (H=F-G)					4.00 = 0	
_			- 6		1	1,52,73,412.10	

^{*} As adviced by the structural engineer



Canteen

Annexure 4

Type of Building -Total Plinth Area -Plinth Area On G. Floor -Refer Drg No., PTU-III/APIT/PRE/AC/CN College 68.11 m.pa

66,11 sq.m 69.11 Total covered areaeq.m

G No. of storey-Floor height(G.F.)-4,00 m

Sr.No.	Description	Unit	Qty	Nos	Rate	Ami	Explanation
4	2	3	4	5	6	7 = (4'5"6)	8
-	-	Ÿ					
1	R.C.C. FRAMED STRUCTURE			0.0			
	RCC framed structure upto six storeys						
1.1.1	Floor height 3.35m						
	Floors	sqm	68.11	1.0	13,200.00	8,99,052,00	
1.2	Extra for						
1.2.1	Every 0.3m additional height of floor above normal floor height of 3.35m.	sqm	68.11	2.17	150.00	22,135.75	
1.2.3	Larger Module over 35 sqm	sqm	68.11	1.0	990.00	67,428.90	
	Fire fighting				2		
	With wet riser system	sqm	68.11	1.0	300.00	20,433,00	
1.2.5	Fire Alarm						
	Automatic fire alarm system	sqm	68.11	1.0	300.00	20,433.00	
	Total A (1.1.1.a + 1.2.1+1.2.2) =					9,21,187.75	
	Total B (1.2.3 to 1.2.6) =					1,08,294.90	
			1				
2	SERVICES						
2.1	Internal water supply & senitary installations	% of A			@ 4%	36,847.51	
2.2	External service connections	% of A			@ 5%	46,059.39	
	Internal Electrical installations	% of A			@ 12.5%	1,15,148.47	
	Extra for						
	Power wiring & plugs	% of A			@ 4%	36,647.51	
	Lightning conductors						
	4 storeyed buildings	% of A			@ 0.33%	3,039.92	
	Telephone conduits	% of A			@ 0.5%	4,605.94	
	Total C =	% of A			@ 26.33%	2,42,548.73	
	Sub Total D = A+B+C					12,72,031.38	
	Add Cost Index (E □)				@ 49%	6,23,295.38	
					1	/	
	Grand Total (D+E) =					10,95,326.78	



CHH

Total Plinth Area 1(c)+2(c)+3(c)+4(c)	Total Additinal Area 1(b)+2(b)+3(b)+4(b)	Total Covered Area ((a)+2(a)+3(a)+4(a)
9,258,04	651.34	8,606.70

College Building Covered Area Additional Plinth Area Plinth Area Area	200		20 11	588 53	67.02	521.51	4,806.90	153.42	4,653.48	3,794.50 4,653.48	430.90	3,363.60	Danie series	
Covered Area Area T(a) - 1(b) 1 (c) 2 (a) 2 (b) 2 (c) 3 (a) 3(b) 3 (c) 4 (e) 4 (b) 4 (e) 4 (68.11	588.53	67.02	521.51	Chrent's						Total Area	0
College Building							3 400 48	7671	2,326.74	3,794.50	430.90	3,363.60	Total Area/ block	0
Covered Area Covered Additional Plinth area Covered Additional Pli							827.14		827.14	1,092.31	70.11	0.00		•
Covered Area Covered Additional Plinth area Covered Area Area				92.17	14.63	77.54					74.60	. 1 020 79	Second Floor	4
College Building 1 Covered Area Area T(u)-1(b) T(c) 2 (a) 2 (b) 2 (c) 3 (a) 3 (b) 3 (c) 4 (e) 4 (b)				240.70	67.67	20.00					20		Mezzanine Floor	•
College Building 1 Covered Area Area T(s)-1(b) T(s) 2 (a) 2 (b) 2 (c) 3 (n) 3 (c)					36 96	218 92	794 32	40.57	763.75	1,028.29	204.79	00.530		a
AREA CALCULATION Building block/ Function 3 4		,	80.17	248.18	23,73	228,05	781.99	30.14	745.85	08.670,1	101,00	00000	First floor	2
AREA CALCULATION Building block/ Function College Building 1 Covered Area		4(b)	4 (8)	3 (c)	3(b)	3 (1)	2 (c)	2 (b)	2 (a)	(0)	154.50	1.510.31	Ground Floor	-
AREA CALCULATION Building block/ Function 3 4 ege Building 1 Hostels Additional Plinth rea Covered Additional Plinth area Area 1 (ii) 1 (ib) Area Area 2 (a) 2 (b) Area Area Area Area Area Area Area Area		Area	Area	olal olal						4 fal		1 (a)		S.NO.
AREA CALCULATION Building block/ Function 1 2 Building block/ Function 3 Additional Building 1 Hostels Additional Building 1	18	Additio	Covered	Plinth area					Area	1(4)-1(5)	Area	Covered Area		
AREA CALCULATION Building block/ Function	la	Cafete		The state of the s	Admin	STATE STATE	STATE SERVICE	Siateous	BERDICHERON		Additional			
block/ Function		4		Contract of the last	d	The State of the S					e Building	Colleg		I
AREA CALCULATION Building block/ Function						10000		2			1	The second second second		
AREA CALCULATION						Inction	ling block/ Fr	Build				I		
							NO	ALCULAT	AREA C					T

(4/h)

A 1 Wall with reiting A.3 TOTAL TOTAL COST SHE 6 (7.162 TOTAL (A.3+B.3+c.3) SITE C (14.64 Wal with rading Wat with railing 1,125.80 1,592,84 2,051,64 458,80 4,224,47 972.79 723/19 249,00 74.24 6,000.00 (36,70,400.00 snowurs 2 14,776.41 5,776.41 1,44,54,136.60 14,778.41 1,44,54,136.60 14,778.41 8,776.41 8,000.00 B,000000 1,07 \$3,736.60 anrayante 2 2,95,00,135.86 76,28,582,30 63,24,602,30 49,04,697.75 59,68,697.75 19,92,000 00 5,63,670,00 6,260.49 8,441,03 6,260.49 14,701.52 6,260,49 34,701.52 8,441,03 0.441.03 1,38,44,685,49 Breik (468,954m) replaced by RGC 38,72,744,55,929.98/m) 2,81,82,894,48 21,01,816.47 76,74,716.08 Refer annexure-1 99,71,950.93 Refer annexure-1 45,31,276.44 Refer annexure-1 88,03,094,91 6,26,662.07 14,266.66 0,260,49 99,71,850,90 14,266,68 1,26,45,190,90 14,268.88 6,000,19 81 WO'R 1,000 IB 70,49,054.01 36,73,739.97 (nnexure 1 3,76,12,443,21 45,31,276.44 65,24,817.75 19,00,041,31 5,94,379,56 Prock (425) 95mm replaced by Hallow garrare ASS. TATITUTE Ŗ Refer acresses 7,052,60 15,058,79 7,052 60 15,058,79 7,052.60 1,12,33,663.28 annexure 1 15,058.79 1,40,06,923.25 8,006 19 8,006.19 8,006.19 36,73,239.97 annexure 1 79,39,817.00 85,34,196.55 3,04,31,242.41 19,93,541.31 70,98,142.62 51,04,601.31 5,94,379.55 Brick (2212.95/m) replaced by Hollow concrete block Brick (488.95/m replaced by Hollow concrete block 495, 144/m) refer 2489, 14/rm) refer 15,531.46 1,55,70,834.62 8,084,63 7 446 83 15,531.46 8 084 63 8,084,63 16,531,46 7,446.93 1,18,61,608 24 1 83,83,640,89 89,83,843,52 37,09,226.38 1 3,19,47,690.57 20,13,071,86 53,68 940,68 6,00,202.63 74,03,012,74 Brick (488.95/rm replaced by Hollow Brick (2212.95/m replaced by Hollow concrete block 573.58/rm) 2883.37/rm) refer annexure refer annexure concrete block

S,mo.

Particulary

Langth

Cost, irm

Total Cast

Remarks Cost/rm

Prefabricated panels construction at sides & nominal RCC inplace of bricks in front

Option 2

Option 3

Prefabricated panels construction II aides & hollow concrete blocks inplace of bricks in

Brick replaced by Hollow concrete blocks (400*200*200)

Option 4

Total Cost

Remarks

CONTIN

Total Cost Remarks

Cost/rm

Total Cost

Remarks

Cost/m

Total Cost

Remarks

Brick replaced by golid concrete blocks

Option 6

(400-200-200)

Conventions i construction

CALCULATION OF COST OF BOUNDARY WALL AT MANSA CAMPUS

SITEA (32.06)





(11/17)

DERIVATION OF COST/RUNNING METRE FOR BOUNDARY WALL AT PTU, JALANDHAR

S.no	Particulars	Unit	Quantity/ Cost	L AT PTU, JALANDHAR Remarks
	Total Estimate of boundary wall			
1	(as submitted in April 2006)	Rs.	1,41,17,000.00	
2	Less Space,frame	Rs.	15,13,213.45	
				Area = 42,41 sqn
				Per som cost= Rs 6,538.5 as
				derived from APIT ESS
3	Less HT Meter Room	Rs.		Estimate submitted in
	TOTAL ESTIMATE FOR BOUNDARY	rs.	3,62,117.79	september 2011
A	WALL	Rs.	1,22,41,668.77	An in A - II poor
			122711000,71	As in April 2006 18% over 2006 + 49% over
4	Add cost index @.67 over cost in 2006	Rs.	82,01,918.07	-
	TOTAL COST OF BOUNDARY WALL			2007
В	(A+4)	Rs.	2,04,43,586,84	As in 2011
5	Length of Boundary Wall with railing	-		10111201
	The secondary Train With Family	m	1,123.00	
	Cost of boundary wall with railing per			Based on the cost calculated
3	running metre	Rs/rm	8,000.00	from APIT boundary wall
	Total Cost of boundary wall with railing	T.O.T.	0,000.00	estimate
5	(5*6)	Rs.	89,84,000.00	
	Length of Boundary Wall without railing	m	1,691.10	
	Cost of boundary wall without reiling		.,,551.16	
)	per running metre [(B-C)/7]	Rs.	6,776.41	





	Rate analysis for Precast pa	inel wall	
s.no.	Particular		Cos
1	Cost of wall (including transportation, taxes & labour)	Rs./rm	5,390.00
6	Add water charges @ 1%		63,90
7	Total		5,443.90
8	Add contractor's profit & overhead @15%		816,59
9	TOTAL	PARTE	8,260,49

	Rate anal	yele for Hallow Concr	ete blocke				
		L	В	WIDTH	OTY.		NO.OF BK.
	MATERIAL	CONC, BLOCK 40	-				
	NO, OF HOLLOW BLOCKS =		10	10	1 1	00 9.29368	11
	ADD WASTAGE 1%			~~ ~			
1	TOTAL						11
3	COST OF COINC, BLEDCKS					55	
3	CEMENT BAGS			0.988	5	7.55	252.0
1	SANO			0.199		500	93.6
5	SUB TOTAL					300	6798.1
á	ADD CONT, PROFIT 10%						679.6
7	TOTAL Ru.						7471.7
3	LABOUR FOR 34 CUM OUT PUT						PATER
9	MASSON FIRST CLASS				0	250	
10	MASSON SECOND CLASS			,	4	250	7500
ш	MAZDOON				-	200	HO:
12	MAZDOOK WOMEN			_	0	150	1500
13	AHISTI				٥	135	2500
4	WATER CHARGES LUMP SUM				6	150	900
5	SCAFFOLDING LUMP SUM				1	200	200
0	TOTAL				1	300	300
17	ADD CONTRACTOR PROFIT 21.5%						E706
18	TOTAL						107)
18	COST FOR 2.13 CUM Le. FOR 100 SFT WALL						10670.1
20	TOTAL COST FOR 100 SET IT THICK WALL (A+B)						66)
23	COST OF CONC. BLOCKS/ CUR						0159
	TOOL OF COMO. MECCANA COM						3,820.93
24	Cost/ module of front side boundary wall				0.7	2 cum	2,750.85
25	Cost of 18 modules (100m wall length)				0.1	2 (24)	49,515.39
26	Cost /rm of front side wall						495.15
							433.13
27	Cost /rm of side & rear wall	1			0.651	5 cum/rm	2,489.14

-

Rate	analysis for Solid Co	ncrete blocks					
	L	В	WID	TH Q	TY.		NO.OF BK.
MATERIAL	CONC. BLOCK	400±200±200					morer bita
NO, OF HOLLOW BLOCKS =		1D	10	1	100	9,29368	13
ADD WASTAGE 1%				_			14
TOTAL							11
COST OF CONC. BLOCKS						65	7616.01524
CÉMENT BAGS				.9885		755	252.0
SAND				1993		500	99.6
SUB TOTAL			-			300	7867.4
ADD CONT, PROFIT 10%							796.7
TOTAL Rs.							8764.6
LABOUR FOR 34 CUIA OUT PUT							87.843.0
MASSON FIRST CLASS	175			10		250	250
MASSON SECOND CLASS				4		200	20
MAZDOOR				10		150	150
MAZDOOR WOMEN				30		125	750
PHIST)				6		150	
WATER CHARGES LUMP SUM				1		200	900 200
SCAFFOLDING LLIMP SUM				1		300	
TOTAL				-		300	50
ADD CONTRACTOR PROPIT 21.5%							870) 1871
TOTAL							10470.0
COST FOR 2,13 CUM i.e. FOR 300 SFT WALL							10470.1
TOTAL COST FOR 100 SET IF THEIR WALL (A+B)							147
COST OF CONC. BLOCKS/ curb							4,425.74
							~,420.14
Costi module of from side boundary wall					0.72		3,186.53
Cost of 16 modules (100m wall length)					LL: I E	entilii.	57,357,69
Cost /rm at front side well							573.58
	*						070100
Cost/rm of front side wall				- 13	0.6515	cum/rm	2,883.37
							2,000.07

