Pt. Dwarka Prasad Mishra Indian Institute of Information Technology Design & Manufacturing Jabalpur

(Established by MHRD, Govt. of India)

Agenda

Building & Works Committee

2006/1st Meeting

DATE	:	July 14, 2006
TIME	:	15:00 Hours
VENUE	:	Conference Hall, PDPM-IIITDM, I T Building, GEC Campus, Jabalpur

पं. द्वारका प्रसाद मिश्र भारतीय सूचना प्रौद्योगिकी अभिकल्पन एवं विनिर्माण संस्थान जबलपुर

Pt. Dwarka Prasad Mishra Indian Institute of Information Technology Design & Manufacturing Jabalpur

IT Bhawan, Jabalpur Engineering College Campus, Ranjhi, Jabalpur 482 011 India

J.P. Singh
Acting Registrar
&
Secretary
B & WC

PDPM-IIITDM/2006/

July 04, 2006

Dear Sir(s),

The 2006/ 1st Meeting of the Building and Works Committee of Pt. Dwarka Prasad Mishra Indian Institute of Information Technology, Design & Manufacturing (PDPM-IIITDM) Jabalpur, is scheduled to be held on Friday, July 14, 2006, at 15:00 Hrs at Conference Hall, PDPM-IIITDM, GEC Campus, IT Bhawan, Ranjhi, Jabalpur.

Kindly make it convenient to attend the meeting.

With regards,

Sincerely,

J.P. Singh

1. Prof. Sanjeev Bhargava — Chairman
   Director, PDPM- IIITDM
   Jabalpur

2. Mrs. Irina Garg — Member
   Director (Technical)
   Ministry of Human Resource Development
   Shastri Bhawan
   New Delhi

3. Shri Dilip Mehra — Member
   Principal Secretary
   Technical Education
   Government of MP
   Bhopal

Ph. : +91-761-2632273 (O) Fax : + 91-761-2632524

4.	Prof.Aparajita Ojha Professor PDPM IIITDM Jabalpur	Member
5.	Shri P.S.Manglani Superintending Engineer O/o Chief Engineer Upper Narmada Zone Bargi Hills , Jabalpur Zone – 6 (Nominee of BOG)	Member
6.	Shri B.K.Nema O/o Superintending Engineer Public Works Department Jabalpur (Nominee of BOG)	Member
7.	Shri J.P.Singh Acting Registrar PDPM IIITDM Jabalpur	Secretary

Special Invitees

1. Shri Ravi Mathur, IAS,
   Joint Secretary
   Ministry of HRD
   Shastri Bhawan, 'C' Wing
   New Delhi -110 001

2. Shri S.K.Ray
   Joint Secretary & Financial Advisor
   Ministry of HRD
   Shastri Bhawan, 'C' Wing
   New Delhi -110 001

3. Shri Rajeev Garg
   Executive Engineer
   IIT Kanpur

4. Shri Sanjay Kanvinde
   Architect
   New Delhi

Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

AGENDA

2006/1ST MEETING OF THE BUILDING AND WORKS COMMITTEE

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Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

2006/1st meeting to be held on Friday, July 14, 2006 at 15:00 Hours in the Conference Hall , PDPM IIITDM, IT Bhawan, GEC Campus, Jabalpur

AGENDA

B & WC/2006.1.1	**Confirmation of Minutes of the 2nd/2005 Meeting of the B & WC held on September 16,2005**

The agenda and minutes of the 2nd /2005 Meeting of the B & WC held on September 16,2005 were circulated to all its members and no comments has been received . The copy of the minutes of the meeting is placed at **Annexure AP-1 to AP-4.**

B & WC/2006.1.2	**To consider the Concept Master Plan of the campus.**

About 250 Acres of land has been allocated by district administration of Jabalpur for the campus of PDPM IIITDM Jabalpur. The land was surveyed and marked on the ground. The contour survey has also been carried out. The plane Table and contour survey plan was provided to the Architect. The requirements of the campus were discussed with the Architect by a group of the following:

i) Prof. S.G. Dhande, Director, IIT Kanpur & Ex. Director, IIIT DM Jabalpur.
ii) Prof Sanjeev Bhargav, Director, IIIT DM Jabalpur
iii) Shri Rajeev Garg, SE, IIIT DM, Jabalpur.

Based on the above inputs the Architects developed a concept Master Plan which was discussed with the various faculty members of IIT Kanpur and IIIT DM Jabalpur. After modifications and deliberation based on the inputs of the various faculty members a final conceptual Master Plan of the campus is developed by the Architect. The philosophy behind the development of Master Plan prepared by Architect is placed at **Annexure AP 5 to AP 12**. The copy of the Concept Master Plan is placed at **Annexure AP 13.**

The construction is proposed to be carried out in phases. The proposed construction in phase I is marked on Concept Master Plan.

The B&WC is requested to consider the Concept Master Plan of the campus and to recommend for in principle approval to Board of Governors

B & WC/2006.1.3	**To consider preliminary estimate for construction of two number hostels of seating capacity 408 each.** **(SH : Civil & Electrical Works)**

The preliminary estimate for construction of two numbers single seated hostel of seating capacity 408 each has been prepared on the Delhi Plinth Area 1992 basis. The details of the estimate amounting to Rs. 2384 Lacs (Twenty Three Hundred Eight Four Lacs only) along with concept drawings, history, design & scope, specifications are placed at **Annexure AP 14 to AP 30**. The above cost of building does not have any provision for site development, internal roads & paths, horticulture operations and furniture. The estimate for these items except furniture shall be submitted along with the development of the area around this building in due course of time. For furniture the estimate shall be put-up separately.

The B & WC is requested to accept the preliminary estimate amounting to Rs.2384 Lacs and to request the Finance Committee to recommend the same to Board of Governors for administrative approval and expenditure sanction for the above work.

B & WC/2006.1.4	**To consider preliminary estimate for construction of Teaching Labs Block.** **(SH : Civil , Electrical & Low Side of Air Conditioning Works)**

The preliminary estimate for construction of Teaching Labs Block has been prepared on the Delhi Plinth Area 1992 basis. The details of the estimate amounting to Rs. 700 Lacs (Rs. Seven Hundred lacs only) along with concept drawings, history, design & scope, specifications are placed at **Annexure AP 31 to AP 43**. The above cost of building does not have any provision for site development, internal roads & paths, horticulture operations, high side of air-conditioning and furniture. The estimate for these items except furniture shall be submitted along with the development of the area around this building in due course of time. For furniture the estimate shall be putup separately.

The B & WC is requested to consider the preliminary estimate amounting to Rs.700 Lacs and to request the Finance Committee to recommend the same to Board of Governors for administrative approval and expenditure sanction for the above work.

B & WC/2006.1.5	**To consider preliminary estimate for construction of Lecture Hall / Class room Complex.** **(SH : Civil, Electrical & Low Side of Air Conditioning Works)**

The preliminary estimate for construction of Lecture Hall / Class room Complex has been prepared on the Delhi Plinth Area 1992 basis. The details of the estimate amounting to Rs. 661 Lacs (Rs. Six Hundred Sixty One Lacs only) along with concept drawings, history, design & scope, specifications are placed at **Annexure AP 44 to AP 56** The above cost of building does not have any provision for site development, internal roads &

paths, horticulture operations, high side of air-conditioning and furniture. The estimate for these items except furniture shall be submitted along with the development of the area around this building in due course of time. For furniture the estimate shall be put-up separately.

The B & WC is requested to consider the preliminary estimate amounting to Rs.661 Lacs and to request the Finance Committee to recommend the same to Board of Governors recommend for administrative approval and expenditure sanction for the above work.

B & WC/2006.1.6	**Any other item with the permission of chair.**

Annexure

Pages

AP - 1

PT. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING, JABALPUR

MINUTES
BUILDING & WORKS COMMITTEE
2005/2nd MEETING

DATE	:	Friday, September 16, 2005
TIME	:	10.00 Hrs.
VENUE	:	Conference Hall, Shastri Bhawan MHRD, New Delhi

AP - 2

PDPM-IIITDM JABALPUR

Building & Works Committee held on September 16, 2005

Members present:

Prof. Sanjay G Dhande Acting Director PDPM-IIITDM Jabalpur	Chairman
Mrs Irina Garg Director (T) MHRD, Shastri Bhawan New Delhi (Nominee of the Central Govt.)	Member
Prof. Sanjeev Bhargav Dept. of MME IIT Kanpur (Nominee in place of Dean (PG))	Member
Shri B.K Nema Superintending Engineer O/o Chief Engineer Public Work Dept., Jabalpur (Nominee of BOG)	Member
Shri J.P. Singh Acting Registrar PDPM-IIITDM Jabalpur	Secretary

Special Invitee:

Mr Rajeev Garg
Superintending Engineer
PDPM-IIITDM Jabalpur

Dr. Puneet Tandon
Associate Professor
PDPM-IIITDM Jabalpur

AP - 3

PT. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING, JABALPUR

(BUILDING AND WORKS COMMITTEE)

MINUTES

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PT. DWARKA PRASAD MISHRA
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING JABALPUR

2nd MEETING OF THE BUILDING AND WORKS COMMITTEE HELD ON SEPTEMBER 16, 2005

(Draft Minutes of the Meeting)

B&WC/2005.2.1	To consider the tender for acceptance

The Board approved the tender for acceptance for construction of brick masonry boundary wall (Partial Length 4Km) of Mr Anil K Grover for a sum of Rs.81,45,640/- (Rupees Eighty One Lakhs Forty Five Thousand Six Hundred and Forty only), as recommended by Building and Works Committee and the by Finance Committee held on September 16, 2005.

B&WC/2005.2.2	Appointment of Architect

The Board noted the progress and procedure followed for the appointment of architect. It approved the committee consisting of the Director, the BOG Member (Professor S. Bhargava), the Chairman/ Nominee of AICTE Board of Architect and Shri S.K. Sharma, Ex-President, HUDCO for evaluation of the conceptual master plan of the building. Professor H. P. Dixit suggested that while designing the building a foot print may take into account the concepts of computer aided geometric design such as, for example, Bezier curve, B-spline curve etc.

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

J.P.Singh 05/10/05
Actg Registrar

Chairman
Building and Works Committee

Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

Philosophy behind development of Master Plan

Site Context

The 96 Ha (243 acre) site located on the Airport Road, near Menhgawan Village, 8km from Jabalpur, possesses good accessibility and sits on the edge of a plateau with a good view to the west. The undulating site comprises two land parcels connected by a narrow strip. The topography is characterized by a saucer like formation sloping towards a seasonal water course traversing across the site and discharging into the Khandari Reservoir nearby. The site has moderate vegetation. The soil is generally rocky with traces of outcrop visible especially along the water channel.

Landuse/ Zoning

- Since the site is close to the airport, it is desirable to limit the project to a low rise development not exceeding four floors.

- The seasonal water course, (with an island) which flows towards the Khandari Reservoir provides an ideal natural and visual resource which needs to be preserved and reinforced to create a recreational focus within the Campus.

- The smaller plot of land to the east with sparse vegetation is relatively flat with gentle slopes, which makes it suitable for active recreation spaces around which faculty/staff housing and other community facilities could be arranged.

- The larger plot of land to the west is constrained by mounds, vegetation, the flood plain of the water course and adequate buffer from the main road. The remaining

land is appropriate for the academic zone in the centre, taking advantage of the views towards the water course, flanked by the hostel zones on both sides.

- The connecting strip of land between the two large land parcels and the area east of the water course enjoys a prominent natural presence because of vegetation and its height relative to the level of the water course along it makes it ideal for recreational/cultural and community facilities of the Campus in a natural setting.

- The small plot across the airport access road is suitable for common facilities requiring a public interface such as a bank, post office and shopping centre.

The topography, drainage pattern and the water course along with the interrelation of the uses result in zoning the academic area within the larger plot along the slopes; focusing towards the water course. The hostels are located on the higher ground adjacent to the academic area. The residential, faculty and staff housing is accommodated within the smaller plot, with the community and other facilities being placed between.

The three primary functions namely academic, hostels and housing are in principle all accessed by means of a vehicular loop road and spurs creating a predominantly vehicle free pedestrian zone within.

Academic Core

In order to optimize the building frontage onto the natural feature of the water course, and yet respect the flood plain, the Academic development has been sited focusing on the central island and water course in a radial formation with the various interrelated functions grouped in a series of clusters. With the core comprising design studios,

research labs and faculty offices arranged around a central open space, the Administration, Computer Center, Library, Lecture Hall Complex and Teaching Labs are envisaged as radial spokes from the circular hub.

An arrival court flanked by the Administration and Teaching Labs provides a formal drop off point, with the auditorium sited across the court completing the spatial enclosure.

The hard edges of the academic built form are complemented by a series of ghat like formations that front onto an artificial lake which is an extension of the water course, whereas the opposite bank, including the island is conceived as a soft and green preserve comprising the 'Meditation Forest' and the 'Navratna Garden' This landscaped waterfront would provide a sense of tranquility and cooling during summer when the seasonal water course dries up.

An effort has been made to impart a sense of completeness at all stages of growth and also to keep adequate provision for future expansion of both academic and residential areas.

Residential – Faculty and Staff Housing

The residential zone has been designed with common facilities like the Community Hall and Nursery School located close to the central green. Most of the Housing clusters around this open space are oriented North/South to take advantage of the climate views.

Director's Residence and Housing Types V (190 sqm) & IV (160 sqm) – being large units have been designed as semi-detached duplex units thereby reducing the footprint of the block and providing adequate open space in the form of courts and terraces.

The lower categories Type III (120 sqm) and II (80 sqm) are designed as two storey walk ups with common car and scooter garages.

Provision for future expansion has been kept for all categories by extending the vehicular spurs and by utilizing the area to the southern part of the plot.

Residential - Hostels.

The layout of the Hostel area is defined by a peripheral road with spurs providing both public and service access, thereby creating a primarily pedestrian environment within. The five Hostels are grouped around a central open space comprising an athletic track and playing fields with a Swimming pool, Gym, Student Activity Center, Canteen and an open air theatre nestled within the slopes. The Girls Hostel is placed closer to the academic area and segregated from the other Hostels by recreational open space. Provision is kept for future expansion.

A typical 340+ seater Hostel block is conceived as an aggregation of 5 clusters or wings grouped around a central landscaped open space. Each cluster, three to four storeys high is provided with covered space for parking cycles, common toilets and a verandah for drying clothes at each floor. Common facilities like lounge/TV room, Library, meeting room, recreation room and Administrative office are located at the entrance, while the dining hall for 200 persons and kitchen is placed close by and served by its own service access. A series of bridges and stilted spaces provide both physical linkages and transparency in unifying the central open space. The sloping site necessitates a gradually

stepped formation in the central court and between the clusters. Volley ball and badminton courts are also provided at convenient locations.

Community facilities.

Community facilities such as shops, health center, guest house, visiting faculty apartments and faculty club are strung informally along a pedestrian spine which originates in the narrow strip between the academic and residential areas and culminates in the green reserve along the water course. Another cross spine originates at the center of the Hostel zone and connects the playing fields, pool, gym, students activity center, canteen and the open air theatre connects the academic complex and extends towards the central green space and the reserve beyond.

In developing the proposal, landscape considerations have been an integral part of the site planning process. Buildings, roads and paths are located and aligned carefully taking into account important features of the existing landscape.

Topography

Broadly the site consists of large areas relatively flat or gently sloping landscape, interspersed with zones of steeper slopes , especially in the central portion. The proposal envisages minimum disturbance to this pattern - the flatter portions will accommodate the academic, residential and recreational zones, and the steeper slopes are proposed to be planted and vegetated as transitional buffers between the zones. In detailing out the landscape plan, the earth grading and planting proposals would be specifically oriented towards retaining existing landform features and existing trees as far as possible.

Open Space Structure

The activity components of the campus are strongly connected to an open space structure aligned north-west to south, with the central valley, watercourse and island acting as a hub. This would be the main pedestrian route of the campus. In sequence, this axis links the sports fields to the cultural area (amphitheatre), and is further joined to the main academic center, the lecture blocks. Further, it goes down to the water course, whose north bank is designed as stepped garden terraces, and then across to an area of dense vegetation and gardens, proposed as a meditative zone. This leads on to the community facilities plaza which serves as an emphatic connection between the faculty residences and the other zones. All the community and public spaces of the campus form part of one clearly articulated open space system consisting of a variety of designed landscapes such as, gardens, plazas, ghats, valleys, groves, bridges, avenues and naturalistic footpaths through forest areas.

Proposed Vegetation

In landscape terms, the campus is imagined as activities set within forests and gardens. There would be deep buffer of native forest species planted along the boundary and to a lesser extent between the main functional zones. This would be supplemented by avenue planting of two or three rows on each side of roads, consisting of large native evergreen trees such as Pilkhan (*Ficus infectoria)* and Neem, etc., together with medium-sized flowering trees. The visual quality of spaces within each zone, and on the main pedestrian route would be enhanced mainly with native flowering trees such as *Jacaranda*, *Bauhinia* (Kachnar), *Erythrina,* and others, and native and exotic ornamental shrubs.

Environmental Concerns

Water and soil conservation are an inseparable part of the landscape concept. Site stormwater run-off will be controlled by a series of infiltration trenches and pits, aligned parallel to the contours and placed at strategic, calculated intervals. Excess run-off would be collected and stored in the waterbody proposed as a part of the academic complex. Only overflow would be permitted to go into the watercourse. The objective is to minimize the water leaving the site.

The above measures would obviously be backed up by the proposed vegetation policy: the initial action would be to afforest areas not proposed for buildings, especially the boundary belt, even in advance of campus development. This would ensure that by the time parts of the campus are ready for occupation, there is reasonably well-grown vegetation cover already in place.

Development stages

The first phase of the project comprises two 340 seater hostel blocks, an academic core comprising lecture hall and classroom complex and the Teaching labs as well as a twenty room guest house supported by the basic infrastructure of roads, paths, water tanks, treatment plant and sub-station/plant room.

The broad zoning and initial programme brief spelt out by the Advisory Committee was discussed at length resulting in certain modifications. After the initial concept proposal, the Advisory Committee made further suggestions based on which a final concept proposal was prepared.

Master Plan

The initial master plan was prepared based on the original brief and the following changes were suggested by the Advisory Committee.

- It was felt that the design studios, research labs along with faculty offices would comprise the most important part of the academic zone, requiring an open space for displaying and testing scale models. Accordingly the design was revised to incorporate a circular shaped three storey built form around a central open space fronting onto the lake water body. The massing comprises three to four large research labs on the ground floor with the smaller design studios and faculty offices on the upper floors, with radial links connecting the various other functions of the Institute. It was also felt that, in order to rationalize the first phase of the Campus, it was appropriate to relocate the Teaching labs closer to the lecture hall complex resulting in a compact area for the phase - I development.
- With the additional land area of 47 acres allotted towards the north, the layout was modified to keep a provision for future growth of both the academic and hostels area and also decongest the first phase hostel area by limiting it to five blocks, supported by adequate green areas and playing fields..
- It was also suggested to include some Visiting Faculty Apartments in close vicinity of the Guest House and Faculty Club.

- sd –
Kanvinde Rai & Chowdhury
Achitect

LEGEND:

ACADEMIC

1. LIBRARY / COMPUTER CENTER
2. ADMINISTRATION
3. TEACHING LABS.
4. LECTURE HALLS / CLASSRM COMPLEX
5. DESIGN STUDIO / LABS / FACULTY OFFICES
6. CAFETARIA
7. AUDITORIUM

RESIDENTIAL

8. DIRECTOR'S RESIDENCE
9. TYPE V
10. TYPE IV
11. TYPE III
12. TYPE II

HOSTELS

13. HOSTELS
14. STUDENT ACTIVITY CENTER
    CENTRAL DINING / KITCHEN
15. PLAYING FIELDS
16. SWIMMING POOL

FACILITIES

17. GUEST HOUSE
18. FACULTY CLUB
19. VISITING FACULTY APARTMENTS
20. HEALTH CENTER
21. SHOPPING CENTER
22. COMMUNITY CENTER
23. NURSERY SCHOOL
24. BANK / P.O. / SHOPPING CENTER
25. SERVICES (E.S.S, A.C. PLANT, U.G.T.)
26. O.H.T.

PHASE I --
PHASE II --

PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING , JABALPUR

SITE PLAN 1:6000

kanvinde rai & chowdhury
architects & planners, new delhi

Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

Name of work : Construction of Hostels (two nos.) of seating capacity 408 each.

Head of Account : Chargeable to Plan Budget.

Preliminary estimate amounting to Rs. 2384 Lacs (Rs. Twenty Three Hundred Eighty Four Lacs only) including 1.5% cost of project management + Architects Fees @ 5.612%(5% fees + 12.24% service tax on fees) & Contingencies (Rs. Five Lacs only, Lump sum) prepared by M/s Kanvinde Rai & Chowdhury , New Delhi to meet the cost of the above mentioned work.

History : Based on the original program a design concept was prepared as a series of clusters around a central open space supported by common facilities.

The following suggestions were made to incorporate in initial concept

- It was felt desirable that the capacity of the Hostel be increased to around 350 from the original 300 capacity.
- Covered cycle parking was required with each cluster. Taking advantage of the undulating site, cycle parking is integrated into the structure as stilted area.
- Though initially conceived as a three storied building, it was decided to add an additional floor as this would also reduce the footprint of the building, leaving more space between hostels and maximize the capacity.
- Based on the suggestion that the distance between the common facilities at the entrance and the dining hall should be reduced, the design was modified accordingly without sacrificing the servicing aspect of the kitchen.
- Layout of the Dining Hall and Kitchen functions were discussed and preliminary inputs from the kitchen consultant were incorporated into the design.
- The functions of the common facilities block were deliberated upon at length and it was agreed to provide a common canteen for the hostels as part of the student activity center with a small convenience store provided within each hostel.

A Committee was constituted by the Director vide office order no PDPM IIITDM /2006/340 dated June 27.2006 , to review and go through campu planning of Institute.Copy is placed at **Annexure AP 17** .The Committee meet on 21-06-06 and subsequently on 29-06-06 in which Architect was also present.. The minutes of meeting are placed at **Annexure AP 18 to AP 19** .The following modifications in the plans presented by Architect were agreed upon

- Instead of having a dining hall and kitchen with each hostel, a central messing facility may be created in a separate three storied building.
- One additional wing may be added in place of proposed dining hall and kitchen in each hostel.
- Loaded stilted spaces in the hostel building are not desirable from the point of view of earthquake resistant structure.
- A separate canteen in each hostel with a seating capacity of 40 students may be created.
- The shape of central lounge may be modified suitably.
- The residential wing of the hostel is not straight there is an angular connection near staircase and toilet .The structural designer should analyze the design on basis of earthquake consideration, if needed seismic joint confirming IS code may be created.

Design & Scope : The design of the proposed building has the following features:

i) Each Hostel is designed for 408 seater.
ii) One complete Hostel comprises six clusters of residential rooms and common facilities like Administrative office, recreation room, meeting room, library, lounge /TV room and canteen.
iii) The residential blocks are four storied and Administrative block and common rooms are two storied RCC framed structure.
iv) All rooms are single seated and have a carpet area of about 10.5 sqm including the cup board.
v) Each wing of the residential cluster has a covered cycle parking area of about 74 sqm. close to the staircase.
vi) A utility verandah for the activities like drying the clothes has been provided at all floors of each wing of residential cluster.
vii) Common toilet block consisting of 3 nos WC, 3 nos. bathroom, 3 washbasins and 2 urinal pot has been provided at each floor. Average use of each of the above facility is designed for 7 to 8 residents.
viii) All the residential clusters common facilities are connected by link corridors.
ix) It is proposed to have energy efficiency measures to reduce the ingress of heat by providing all external walls as cavity walls and hollow clay tiles at room in the residential wings of hostel.
x) The solar water heaters shall be provided for supplying hot water in bathroom.
xi) The building shall be designed for earthquake resistant parameters.

Specification : Brief specifications of work shall be as follows:

i) Designed reinforced cement concrete for structural works.
ii) All in fill walls shall be either brick or cement concrete hollow blocks.

iii) Flooring
a) Pre-cast terrazzo tile flooring in rooms.
b) Kota stone with a band of jaisalmer in link corridors.
c) Kota stone in stair cases, kitchen and common rooms.
d) Anti skid ceramic tiles in toilets.
e) Cement concrete in cycle stands.
iv) Glazed tile upto 2.10 meter in the toilet blocks.
v) Wash basins in the toilets shall be provided on a granite counter.
vi) Cement based integral water proofing treatment over the hollow clay tiles.
vii) 35 mm thick flush door shutters with pressed steel door frames painted with synthetic enamel paint on both sides.
viii) 25mm thick ward robe shutter with MS frame painted with synthetic enamel paint on both sides.
ix) Double shutter Aluminum windows with glazed and wire mesh shutter
x) Oil bound distemper for internal painting.
xi) For external finish a combination of washed stone grit plaster and spectrum finish.
xii) Pozolonna Portland Cement as per IS specifications for non structural works and Ordinary Portland Cement for structural works.
xiii) CP fittings , white glazed sanitary wares, centrifugal cast iron pipes for sewer lines, GI pipes for water supply lines and PVC overhead tanks, and structure built-in parnalas for rain water.
xiv) Electrical wiring with copper wire
xv) Modular switches, energy efficient electrical fixtures.
xvi) Network, telephone connection in the rooms and common areas.

Rates : i) Delhi plinth area rates 1992 enhanced by cost index 205 as applicable at Jabalpur by the order of concerned CPWD authority.
ii) Items not available in the DPAR have been analyzed on DSR 2002 enhanced by 23.49% prevalent cost index and market rates.

Period of Construction : Total Twenty four months for two Hostels with a condition of one Hostel in Eighteen months.

Mode : On contract through call of competitive Tenders.

(T.S.Anand)
A.E

(Rajeev Garg)
S.E

पं. द्वारका प्रसाद मिश्र भारतीय सूचना प्रौद्योगिकी अभिकल्पन
एवं विनिर्माण संस्थान जबलपुर
Pt. Dwarka Prasad Mishra Indian Institute of Information
Technology Design & Manufacturing Jabalpur

IT Bhawan. Jabalpur Engineering College Campus, Ranjhi, Jabalpur 482 011 India

Prof. Sanjeev Bhargava
Director

PDPM-IIITDM/2006/340

June 27, 2006

Office Order

The following Committee has been constituted to review and go through the campus planning of the Institute and advice regarding building and works related activities:

1. Prof. Sanjeev Bhargava PDPM-IIITDM Jabalpur	Chairman
2. Prof. C.V.R Murthy Dept of Civil, IIT Kanpur	Member
3. Prof. M.K. Harbola Dept of Physics, IIT Kanpur	Member
4. Dr. Puneet Tandon Dept of ME, PDPM-IIITDM Jabalpur	Member
5. Shri. Rajeev Garg Suprentending Engineer, PDPM-IIITDM Jabalpur	Member

Sanjeev Bhargava

CC: 1. All members of the committee
2. Registrar, PDPM-IIITDM Jabalpur

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Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

IITK Camp Office:
Post Office- IIT, Kanpur-208016
Jabalpur Campus:
IT Building Govt. Engg. College
Jabalpur

No. IIITDMJ/2006/82 Dated: 06/7/06

Minutes of the meeting of Campus Advisory Committee for campus planning of PDPMIIITDM Jabalpur, held on 29.06.2006 at Visitor's Hostel, IIT Kanpur.
The following were present:

1. Dr. Sanjeev Bhargava
2. Dr. Punit Tandon
3. Dr. CVR Murty
4. Dr. Manoj Harbola
5. Shri Rajeev Garg
6. Shri Sanjay Kanvinde

The proposed mater plan of the campus and the detail planning for Hostels, Teaching Labs, Lecture Hall / Classroom Complex and Guest House were presented by the Architect. The Chairman informed the Architect that a preliminary meeting of the advisory committee was held on 21.06.2006 and the above plans were discussed except Guest House. The members raised some observations and suggested the following:

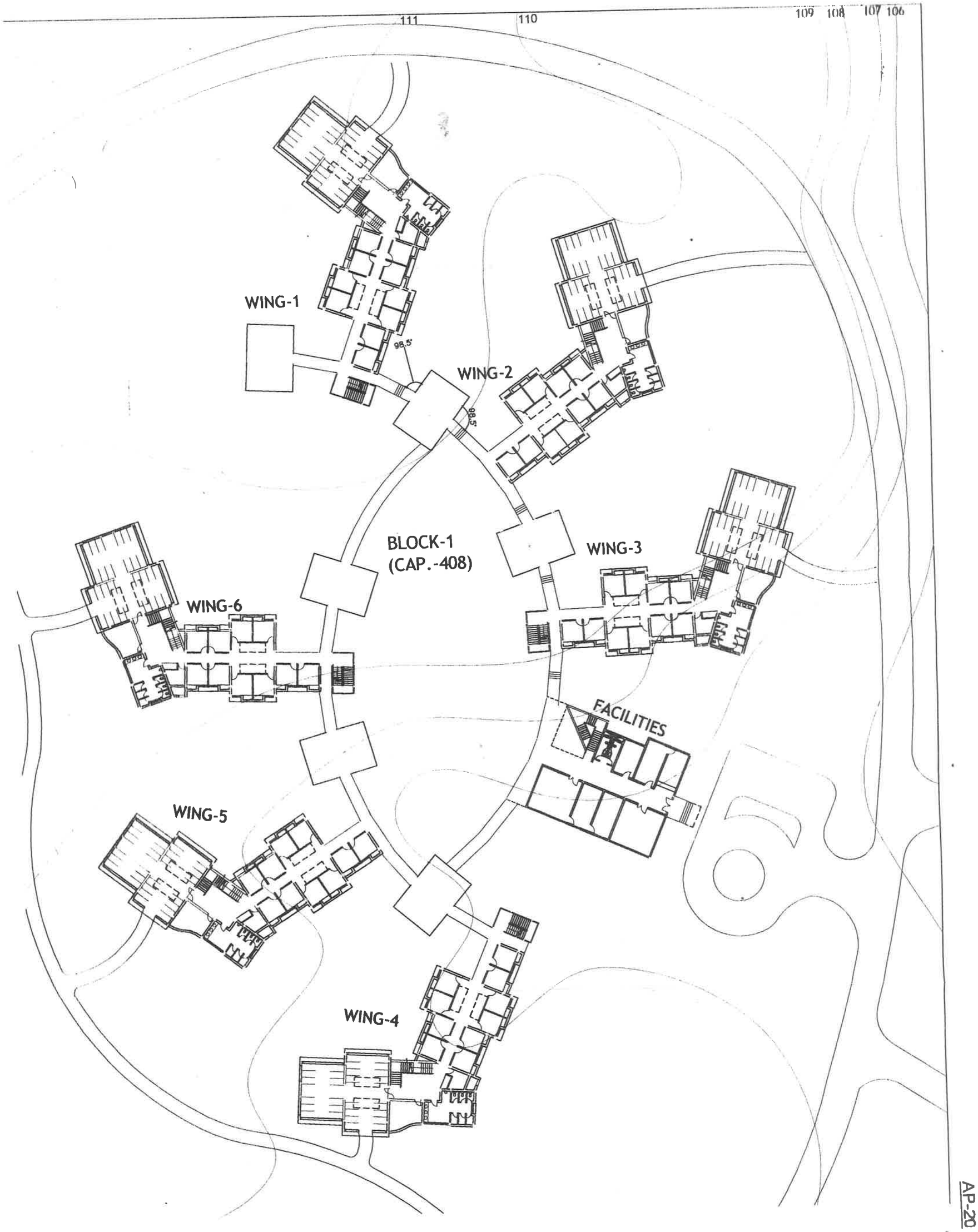
1) In the master plan, the location of type-III and Type-II houses may be switched over with each other.
2) Instead of having a dining hall and kitchen with each hostel, a central messing facility may be created in a separate three storeyed building.
3) One additional wing may be added in place of proposed dining hall and kitchen in each hostel.
4) The loaded stilted in the hostel building is not desirable from the point of view earthquake resistant structure.
5) A separate canteen in each hostel with the seating capacity of 40 students may be created.
6) The shape of the central lounge in hostel may be modified suitably.
7) The specifications of the proposed construction are OK.
8) The residential wing of the hostel is not straight there is an angular connection near staircase and toilet. The structure designer should analyse the design on the basis of earthquake consideration, if need the seismic joint conforming IS code may be created.
9) In Teaching Lab Complex, addition labs may be created in the stilted cycle path.
10) In Lecture Hall Complex additional classrooms of 75 capacities in the stilted cycle path may be created.
11) An additional toilet block and staircase near the classroom is desirable.
12) All the loaded stilted structures should be designed carefully considering the earthquake consideration of latest IS code.
13) All the floors of all Academic buildings should have universal excess.
14) The location of sub station in the master plan should be re-considered in view that HT cable should not cross the Academic Area.

After the detailed discussions and deliberations on the above suggestions the architect has agreed to consider and make the changes in the drawings and estimates already submitted.
The drawings of the Guesthouse were also discussed by the committee and certain modifications were suggested to the architect.

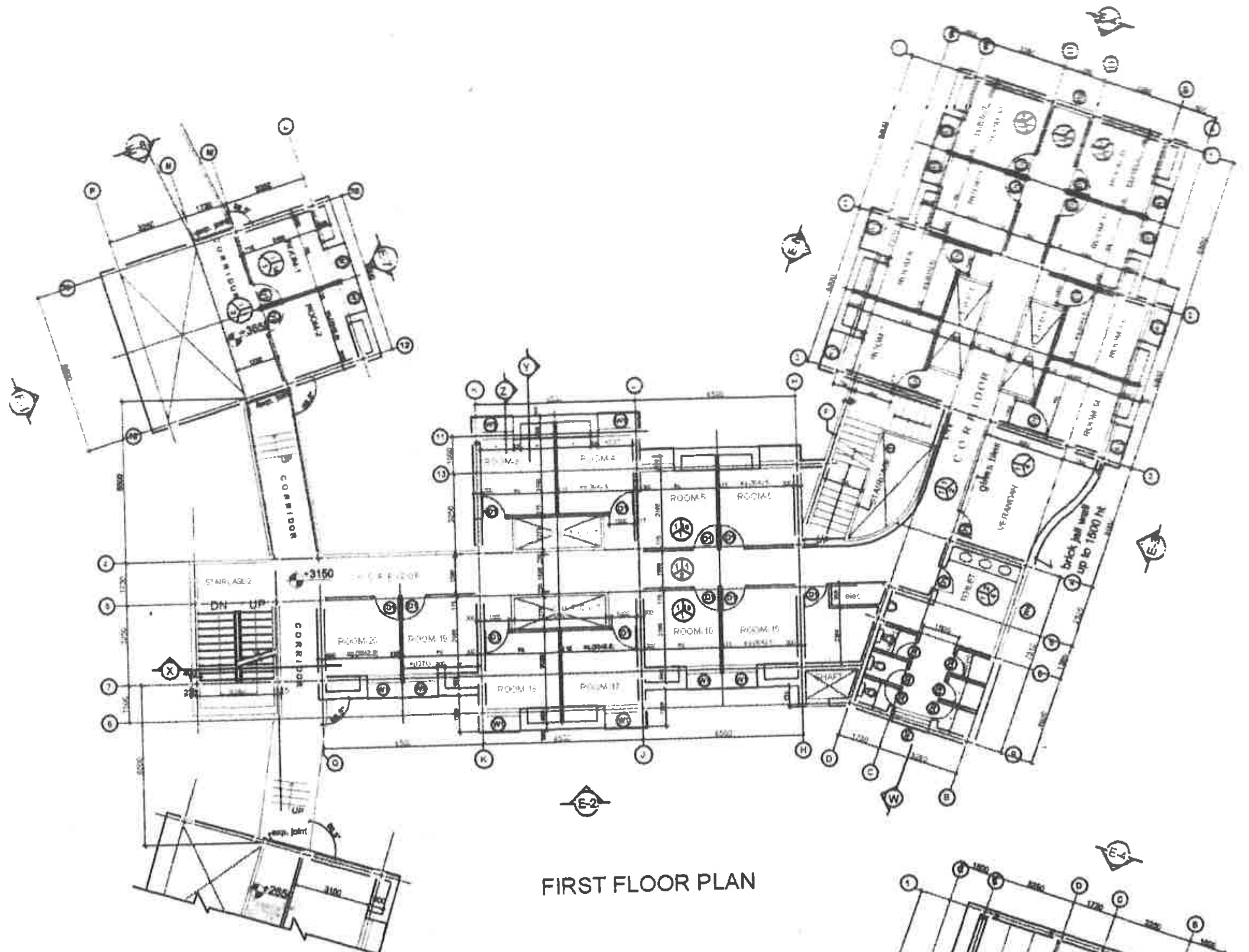
(Rajeev Garg)
Superintending Engineer
PDPM IIITDM, Jabalpur

Approved by

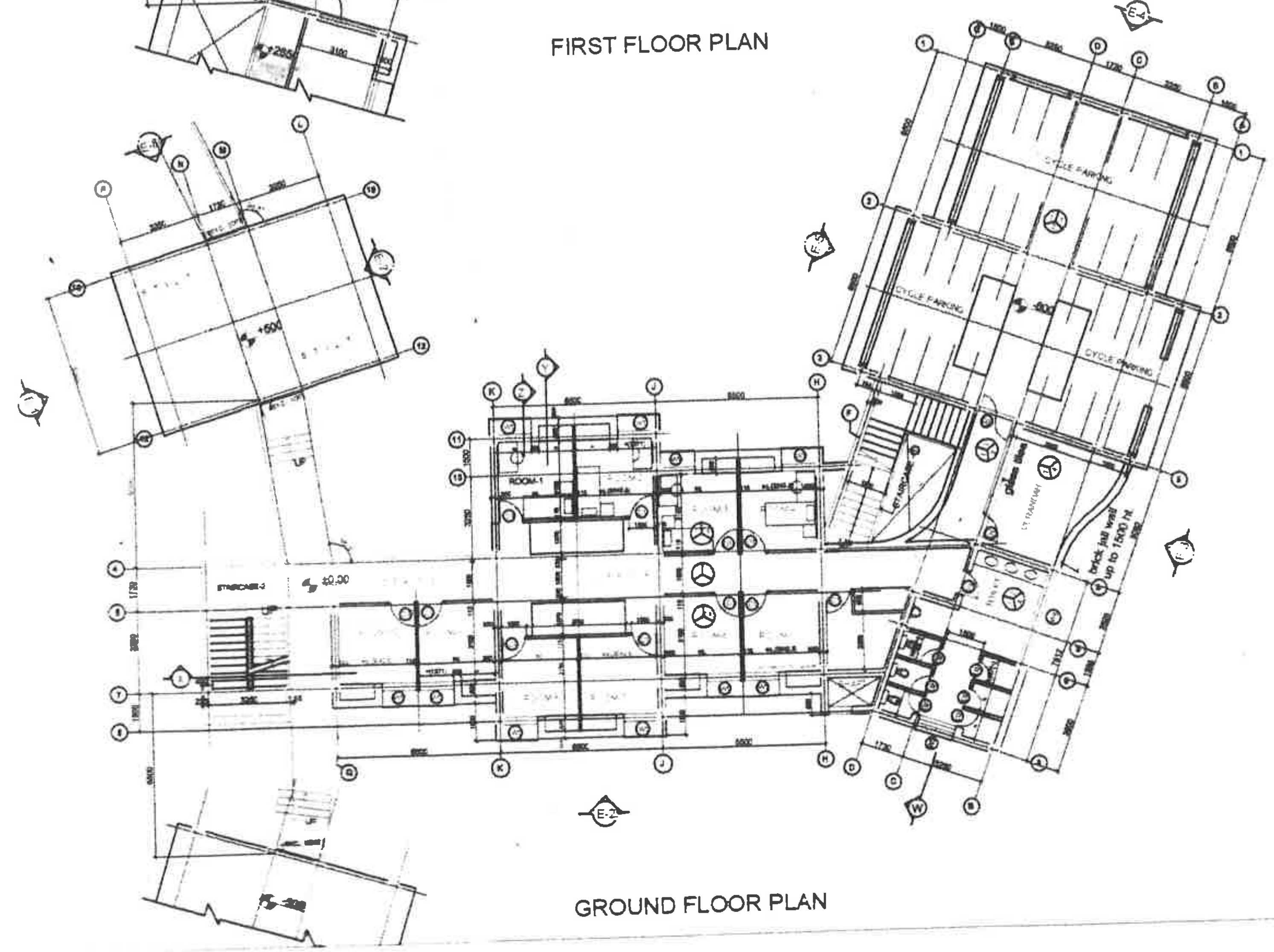
Dr. Sanjeev Bhargava
Director
PDPM IIITDM, Jabalpur


111
110
109
108
107
106
WING-1
98.5'
WING-2
98.5'
BLOCK-1
(CAP.-408)
WING-3
WING-6
FACILITIES
WING-5
WING-4

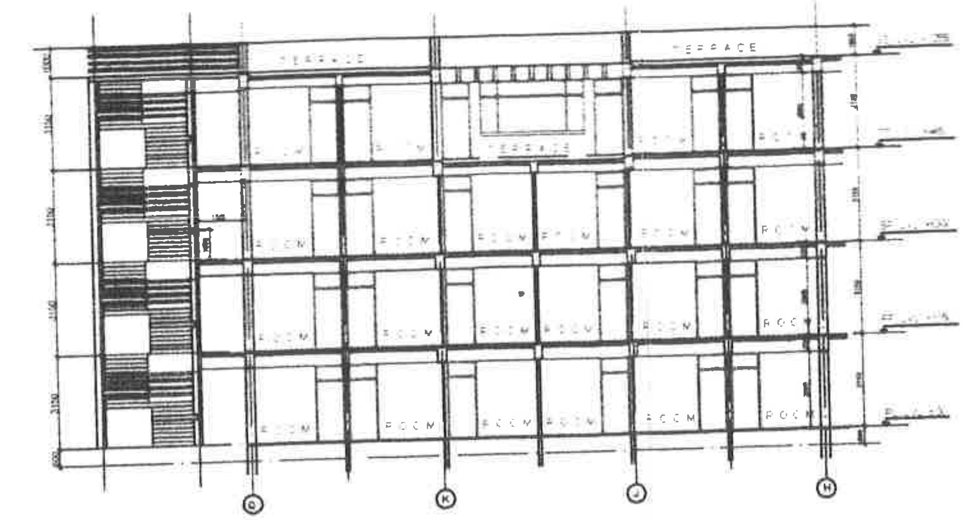
AP-20



FIRST FLOOR PLAN



GROUND FLOOR PLAN



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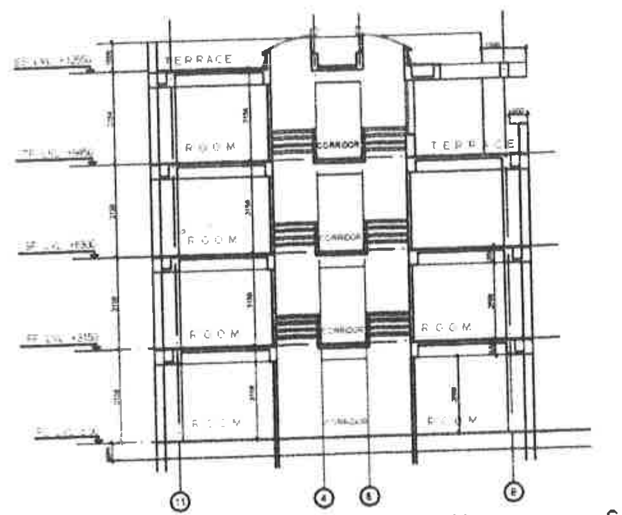

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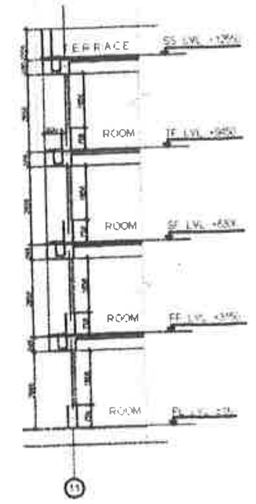

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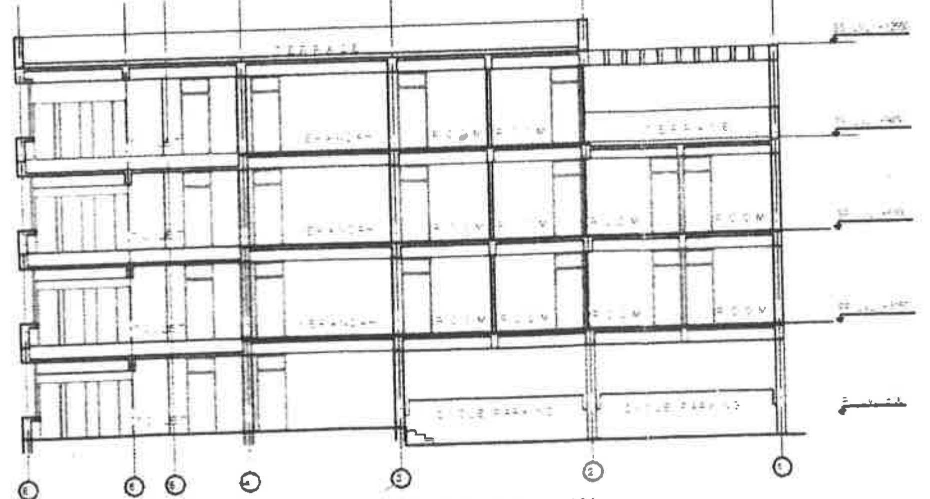


SECTION AT -- W

CEILING
WALL
FLOORING

SCHEDULE OF FINISHES

FLOORING

WALL

CEILING

SCHEDULE OF OPENINGS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	2550		
[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	500	[illegible]		
A1	[illegible]	1850	750	
A2	[illegible]	1850	750	
[illegible]	500	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	1200	
[illegible]	3600	1850	750	
[illegible]	3600	600		
V2	2000	[illegible]		SKY LIGHT

north point | key plan

revisions

date	no	description

date	no	issue

kanvinde rai & chowdhury
architects engineers & planners
new delhi - 110 001 tel 2331[illegible]

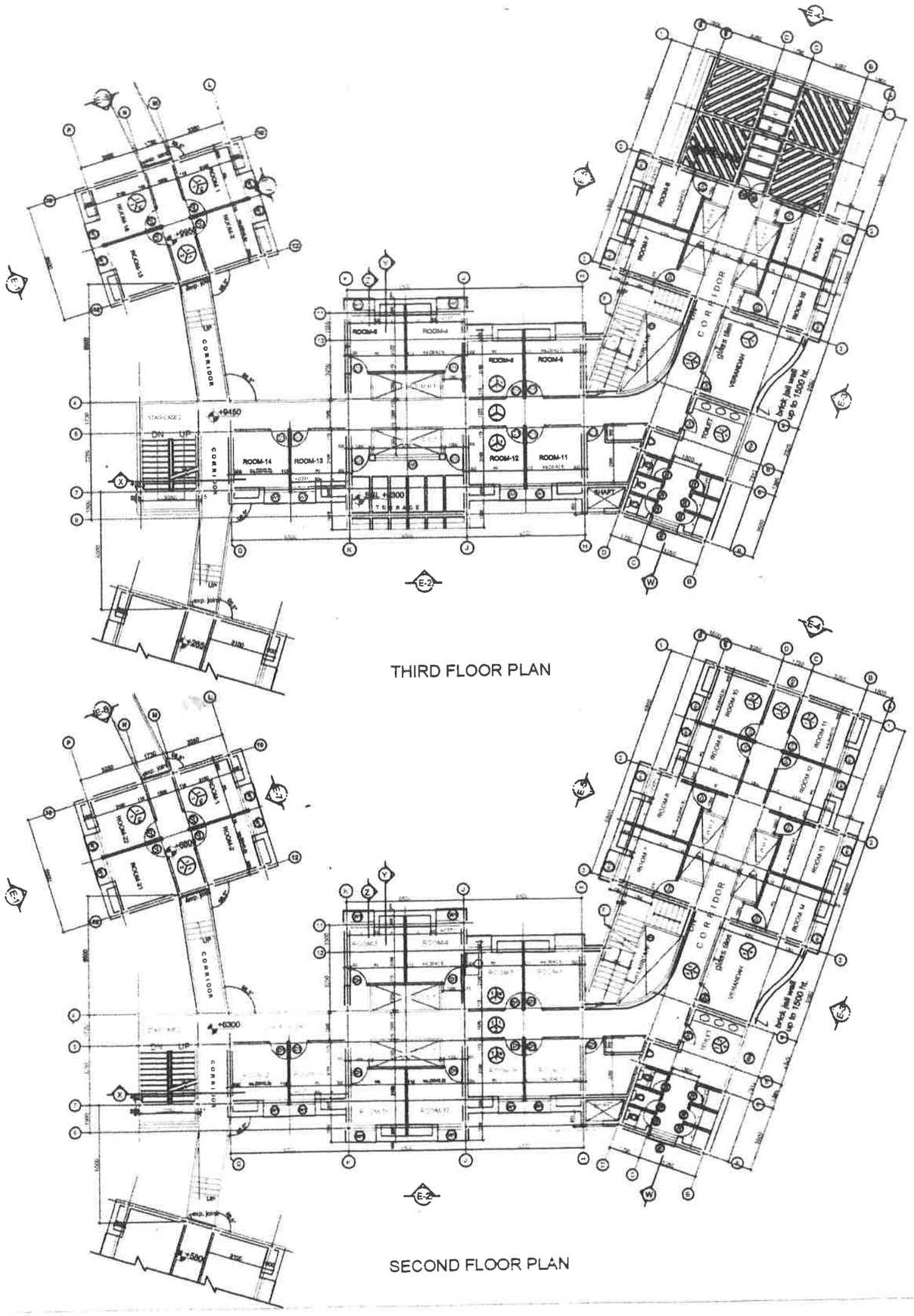
job title

PDPM IIIT JABALPUR

sheet title

HOSTEL - PLANS/SECTIONS/ELEVATIONS

date	25 MAY '98
drawn	ARS
scale	1:100



THIRD FLOOR PLAN

SECOND FLOOR PLAN

notes
all dimensions are in mm
the contractor must verify all the dimensions on site before commencement of work
do not scale this drawing

CEILING — WALL

FLOORING

SCHEDULE OF FINISHES

FLOORING

WALL

CEILING

SCHEDULE OF OPENINGS

D1	1000	2100		
D2	750	1900	100	
D3	750	2100		
W	1275	1950	750	
W1	1500	1950	750	
W2	1500	1950	750	
W4	3600	1300	1200	
W5	3600	1950	750	
V1	3600	600		
V2	2000	1700		SKY LIGHT

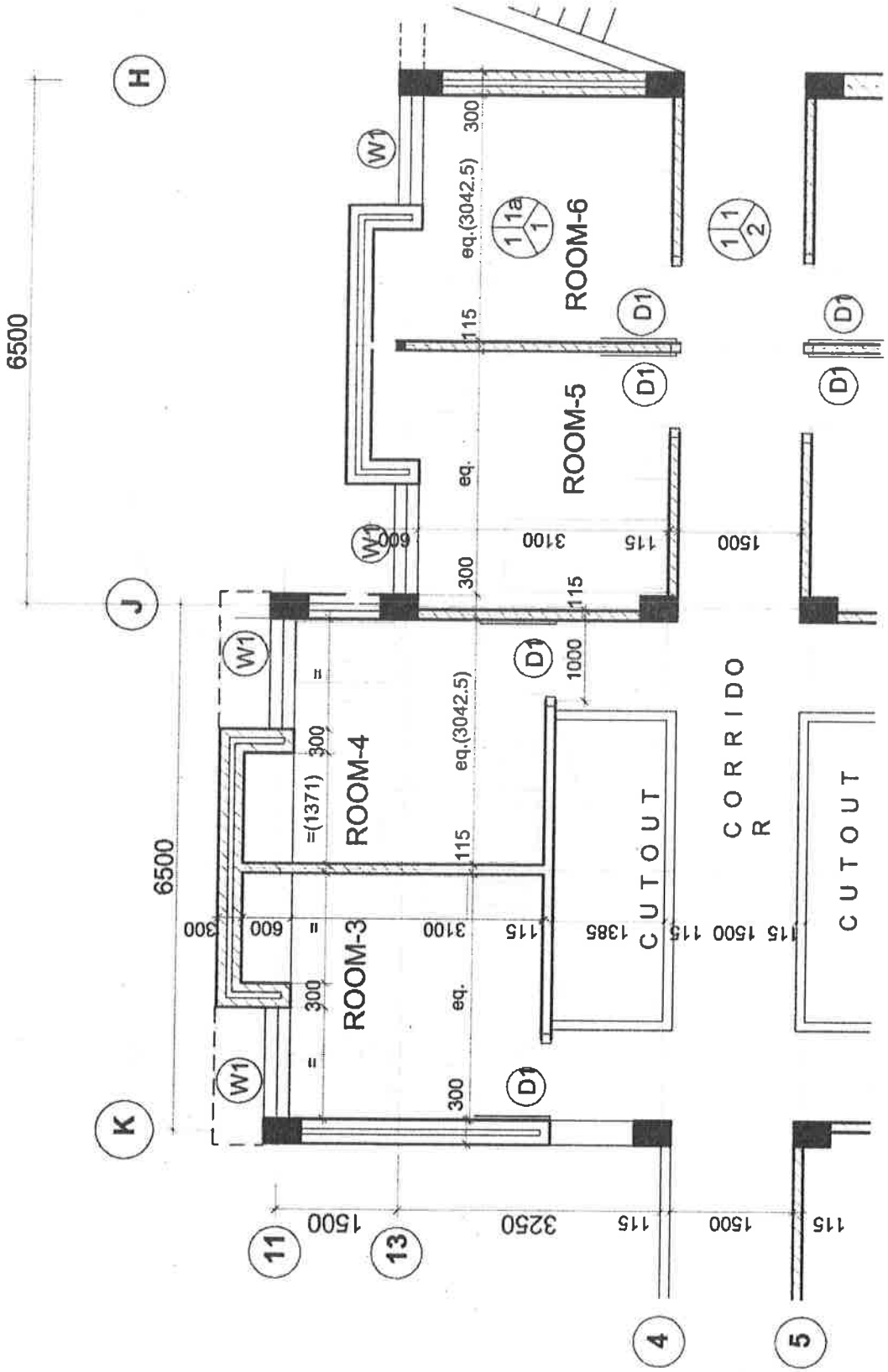
north point	key plan

revisions		
date	no	description

kanvinde rao & chowdhury
architects engineers & planners

PDPM IIIT JABALPUR

HOSTEL - PLANS/SECTIONS/ELEVATIONS



PDPM IIIT DM JABALPUR HOSTEL BLOCK - PART PLAN (1st.floor) 1:50	Date MAY '06	Kanvinde Rai & Chowdhury architects and planners	DRG # HOS 06

PDPM -IIIT JABALPUR - HOSTEL BLOCK

ROOM/WING = 68

TOTAL ROOMS - 68 X 6 = 408

BASIC ROOM - CARPET AREA = 10.5 SQ.M.
(INCLUDING CUPBOARD)
CYCLE PARKING/WING = 74 SQ.M.

FUNCTION	G. FLOOR (SQ.M.)	F. FLOOR (SQ.M.)	S. FLOOR (SQ.M.)	T. FLOOR (SQ.M.)	TOTAL (SQ.M.)	AREA / ROOM (SQ.M.)
HOSTEL (5 WINGS) INCLUDING (STILTS & CORRIDORS)	1950	2770	2920	2415	10055	24.65
CYCLE PARKING	74 X 6	-	-	-	444	1.09
FACILITIES	305	270	-	-	576	1.41
TOTAL AREA (EXCL. DINING / KITCHEN)					11075	27.15

PDPM-IIITDM JABALPUR AREA BRAKE - UP		kanvinde rai & chowdhury architects & planners, new delhi	Date JULY'06	

Name of work : Construction of HOSTEL at PDPM IIITDM Jabalpur.

APPENDIX I

FRAMED STRUCTURE

Preliminary Estimate based on DPAR 92 & MR.

I : Civil Work (Based on Delhi Plinth Area Rates -1992, Base price as 100 enhanced by Cost Index 205)

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
	1	**RCC Framed Structure :**						
		RCC framed structure upto six storey's						
1	1.1.1	Floor height 2.9 m	Sqm	11075	2740	5617	62208275	
	2.0	**Extra for :**						
2	1.2.3	Extra for .25 m of additional floor height beyond normal floor height of 2.9 m.(Hostel)	Sqm	10495	104	214	2241192	
		Extra for .70m of additional floor height beyond normal floor height of 2.9 m.(Facilities)	Sqm	575	292	598	343794	
3	1.2.8	Resisting Earthquake forces	Sqm	11075	250	513	5675938	
4	1.2.12	Larger modules over 35 sqm.	Sqm	500	220	451	225500	
5	1.2.13	Termite proof treatment (On ground floor only)	Sqm	3615	75	154	555806	
		Total A				**Rs.**	**71250504**	

Building Cost (sl. No.1) **Rs.** **62208275**

SL. No.	Code	Description	Unit	Building cost at sl no 1 (Rs.)	Rate	Indexed Rate	Amount	Remarks
	3	**Services :**						
6	3.1	Internal water supply and sanitary installation		62208275	15%		9331241	
7	3.2	External service connections		62208275	5%		3110414	
		Total B				**Rs.**	**12441655**	

		II : Electrical Work						
8	3.3	Internal electrical installations		62208275	15.00%		9331241	
		Total C		**Total**	**15.00%**		**9331241**	

	3.6	**Extra for superior specifications based on DPAR - 92 :**						
9	3.6.1	Power wiring & plugs.		62208275	4.00%		2488331	
10	MR	Copper wiring		62208275	1.00%		622083	
11	MR	Extra for modular switches		62208275	1.50%		933124	
12	MR	Extra for networking conduits		62208275	0.50%		311041	
13	LS	Cable tray					150000	
		Total D			**22.00%**		**4504579**	
		TOTAL (A + B + C + D)					**97527980**	

Name of work : Construction of HOSTEL at PDPM IIITDM Jabalpur.

APPENDIX II

Extra for superior specifications & Architectural features

Preliminary Estimate based on Delhi Schedule of Rates & Market Rate:

		Extra for superior specifications & Architectural features based on DSR 2002 & market rate:						
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	DSR	Extra for kota stone flooring	Sqm.	5850	354	437	2554465	
2	DSR	Extra for vitrified tiles flooring	Sqm.	730	589	727	530970	
3	DSR	Extra for Ceramic tiles in Dining & kitchen	Sqm.	90	146	180	16199	
4	MR	Extra for Jaisalmer flooring	Sqm.	545	1050	1050	572250	
5	MR	Extra for fire clay Brick flooring	Sqm.	10	225	225	2250	
6	DSR	Extra for false ceiling - Gypsum	Sqm.	100	417	515	51458	
7	DSR	Extra for Oil bound distemper	Sqm.	24500	25	31	757889	
8	MR	Extra for using aluminium windows	Sqm.	1300	950	1213	1577219	
9	MR	Extra for Grit Plaster/Spectrum Finish	Sqm.	15000	250	250	3750000	
		Total				**Rs.**	**9812699**	

Name of work : Construction of HOSTEL at PDPM IIITDM Jabalpur.

APPENDIX III

Extra for Energy Efficient Features

Preliminary Estimate based on DSR 2002 & market rate:

		Extra for Energy Efficient features based on DSR 2002 & market rate:						
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Extra for 300 mm cavity wall	Sqm.	8450	130	130	1098500	
2	MR	Extra for hollow clay Tile at roof	Sqm.	2900	400	400	1160000	
3	MR	Extra for pergola/Trellis	LS	600			1200000	
		Total				Rs.	3458500	

PRELIMINARY ESTIMATE FOR HOSTEL at PDPM IIITDM, JABALPUR

SUMMARY OF COST

S.No.	Description	Amount in Rs,
1	Framed Structure as per Appendix I	97527980
2	Extra for superior specifications & Architectural features as per Appendix II	9812699
3	Extra for Energy Efficient Features as per Appendix III	3458500
	Total (A)	**110799179**
4	Cost of Project Management @ 1.5% of (A)	1661988
5	Architect Fees @ 5.612% (5% Fees + Service Tax @ 12.24%) of (A)	6218050
6	Contingencies (Lump Sum)	500000
	GRAND TOTAL	119179217

Say Rs.1192 Lacs

AP - 29

Cost of two Hostels **Rs.2384 Lacs**

Prepared by	Checked By	Recommended By
sd		sd
M/s Kanvinde Rai & Chowdhury	T.S. Anand	Rajeev Garg
	A.E	S.E

830794

Name of work : Construction of HOSTEL at PDPM IIITDM Jabalpur.

BREAK UP OF COMPONENT WISE COST

S.No.	Description	Amount in Rs.	Plinth Area in sqm	Cost per Sqm in Rs.	Remarks
1	Basic cost of the building (civil + electrical)	97527980	11075	8806	
2	Additional cost of building due to superior specifications & Architectural features (civil + electrical)	9812699	11075	886	
3	Energy efficient features	3458500	11075	312	
4	Architect Fees @ 5.612%	6688338	11075	604	
5	Project Management @ 1.5%	1787688	11075	161	
6	Contigencies (lump sum)	500000	11075	45	

Pt. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

Name of work : Construction of Teaching Lab. Block

Head of Account : Chargeable to Plan Budget.

Preliminary estimate amounting to Rs.700 Lacs (Rs. Seven Hundred Lacs only) including 1.5% cost of project management + Architects Fees @ 5.612%(5% fees + 12.24% service tax on fees) & Contingencies (Rs. Five Lacs only , Lump sum) prepared by M/s Kanvinde Rai & Chowdhury , New Delhi to meet the cost of the above mentioned work.

History :

- Based on the initial brief which was discussed with the Advisory Committee, it was decided to have five labs one each for Physics, Chemistry and Material Science with a capacity of 75 students and air-conditioned labs for Computer Science and Computer Graphics with a capacity of 100 students supported by offices for technical staff, covered parking, stores and other services. It was also desired to locate the labs with requirement of wet services like Chemistry and Material Science at the ground floor. A typical lab was worked out on a 30m x 12m module.

The preliminary concept was worked out on this basis with two labs and covered cycle parking on the ground floor arranged around a court with the remaining three labs on the first floor. Common facilities such as toilets, drinking water facility, AHUs, electrical rooms were provided at the corners.

On discussing the proposal, it was desired that provision for two extra labs including an electronics lab be made and accordingly options were worked out on the basis of both a three storey structure and a two storey structure. The two storey option was preferable as it provided three labs on the ground floor with more cycle parking being available within a larger footprint. The remaining four labs are provided on the first floor.
A Committee was constituted by the Director vide office order no PDPM IIITDM /2006/340 dated June 27,2006 , to review and go through campus planning of Institute. Copy is placed at **Annexure AP 17** .The Committee s meet on 21-06-06 and subsequently on 29-06-06 in which Architect was also present.. The minutes of meeting are placed at **Annexure AP 18 to AP 20** .The following modifications in the plans presented by Architect were agreed upon

- Additional labs may be created in stilted cycle parking.

Design & Scope : The design of the proposed building has the following features:

i) Two computer Labs are designed for capacity of 100 students and Six Labs for capacity of 75 students.
ii) At present it is proposed to have one Physics Lab, one Chemistry, two Computer labs , one Material Science Lab and one Metallurgy workshop.
iii) The use of balance two labs shall be decided in due course of development of the academic programs.
iv) Presently the computer, physics, material science lab shall be air-conditioned.
v) The internal finishing of the future two labs shall be done on the basis of the requirements of the academic program.
vi) The chemistry lab and Metallurgy workshop are proposed to be on the ground floor without air-conditioning.
vii) Sufficient covered parking for two wheelers in the stilted area is planned in the design.
viii) The building is designed to have energy efficiency measures.

Specification : Brief specifications of work shall be as follows:

i) Designed reinforced cement concrete for structural works.
ii) All in fill walls shall be either brick or cement concrete hollow blocks.
iii) Flooring
a) Kota stone with a band of jaisalmer in corridors & labs.
b) Kota stone in stair cases & stilted areas.
c) Anti skid ceramic tiles in toilets.
d) Vitrified tiles in chemistry & materials science lab.
iv) Glazed tile upto 1.5 meter in the labs.
v) Wash basins in the toilets shall be provided on a granite counter.
vi) Cement based integral water proofing treatment on overdeck insulation with china mosaic on the top.
vii) 35 mm thick flush door shutters with lamination on aluminum door frames.
viii) Aluminum windows with insulated glass.
ix) Oil bound distamper for internal painting.
x) For external finish a combination of washed stone grit plaster, spectrum finish and structural glazing with insulated glass and stone cladding.
xi) Pozolonna Portland Cement as per IS specifications for non structural works and Ordinary Portland Cement for structural works.
xii) CP fittings , white glazed sanitary wares, centrifugal cast

iron pipes for sewer lines, GI pipes for water supply lines and PVC overhead tanks, and structure built-in parnalas for rain water.

xiii) False ceiling with gypsum boards to conceal the air-conditioning ducts.

xiv) 300 mm thick cavity walls with insulation.

xv) Electrical wiring with copper wire

xvi) Modular switches, energy efficient electrical fixtures.

xvii) Network, telephone connection and UPS wiring in the labs.

xviii) Smoke detection system and fire alarms.

xix) Freight cum passenger lift.

Rates : i) Delhi plinth area rates 1992 enhanced by cost index 205 as applicable at Jabalpur by the order of concerned CPWD authority.

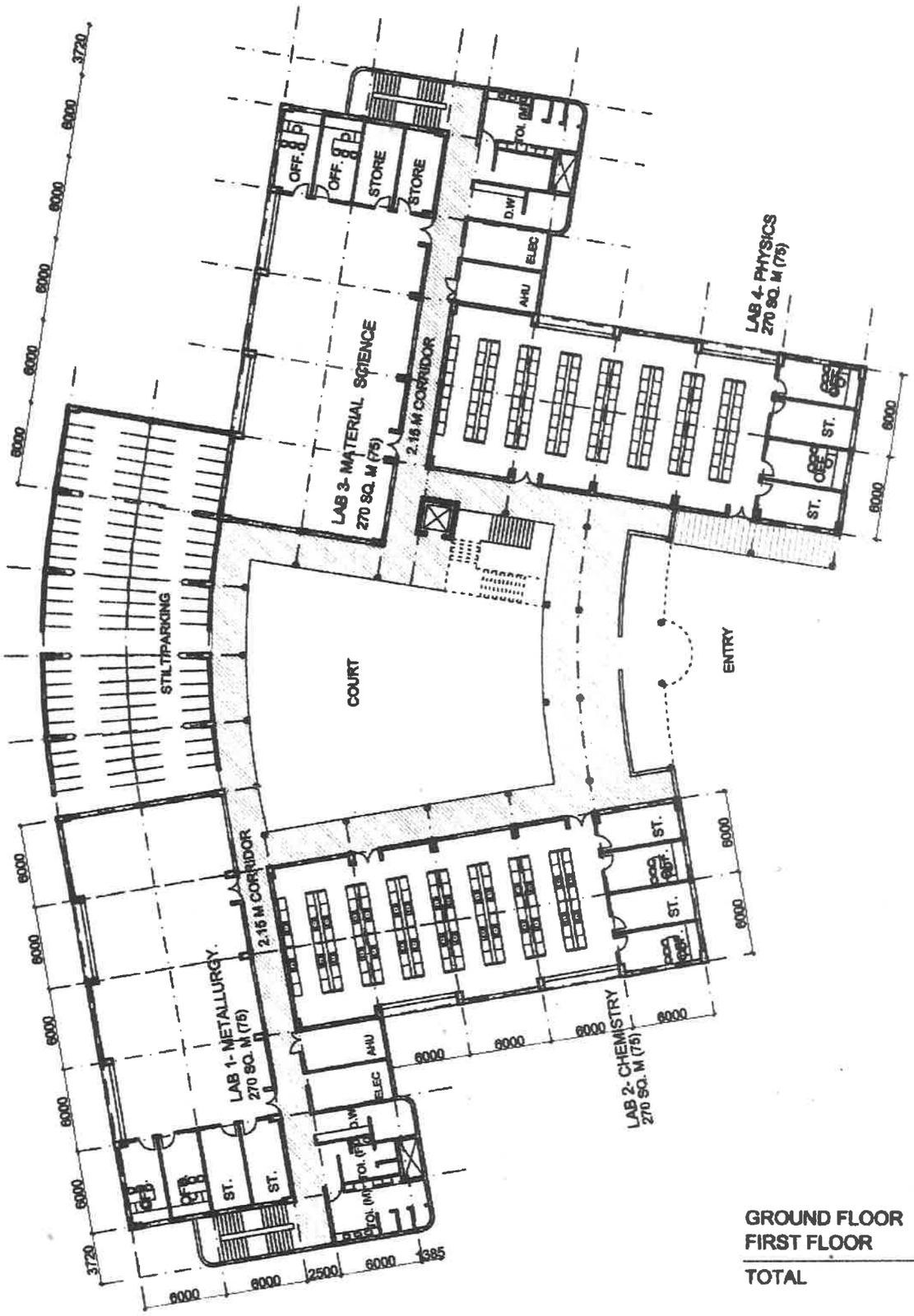
ii) Items not available in the DPAR have been analyzed on DSR 2002 enhanced by 23.49% prevalent cost index and market rates.

Period of Construction : Total eighteen months.

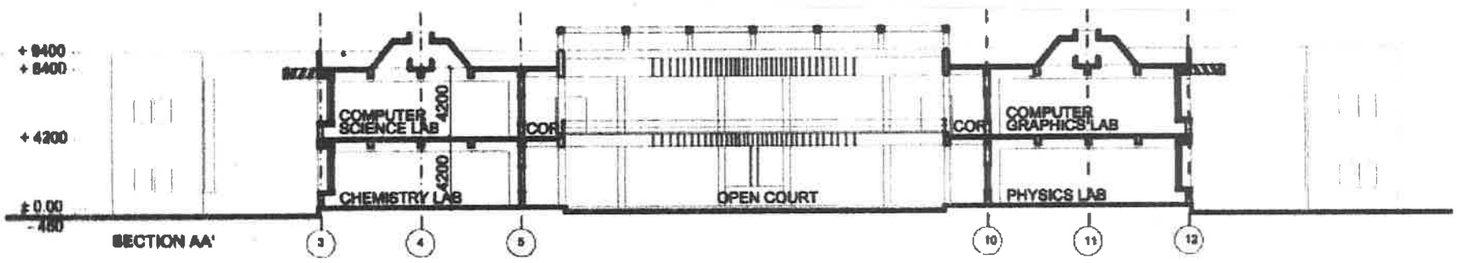
Mode : On contract through call of competitive Tenders.

(T.S. Anand)
AE

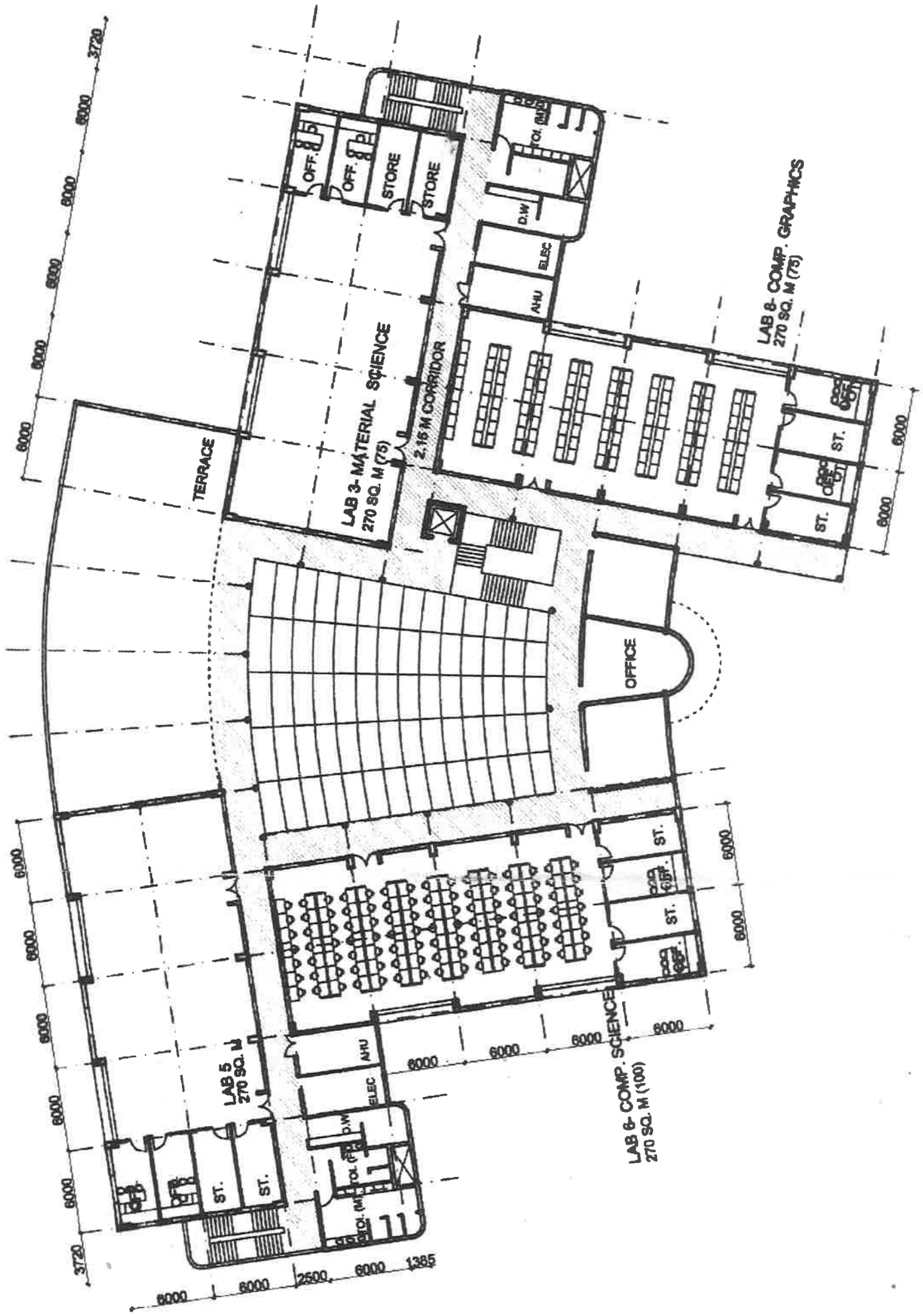
(Rajeev Garg)
SE

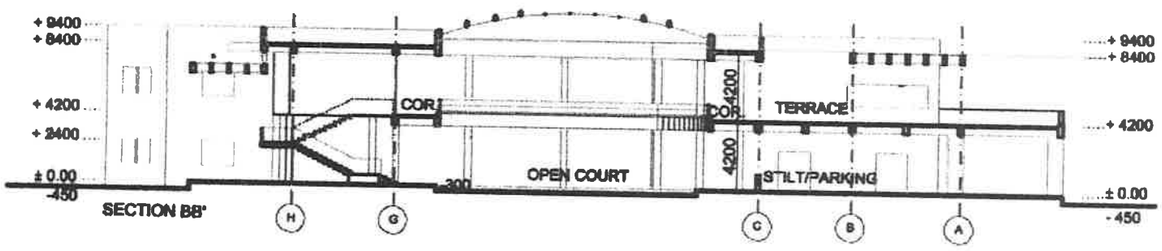


GROUND FLOOR	2440 SQ. M
FIRST FLOOR	2360 SQ. M
TOTAL	4800 SQ. M



PDPM - IIITDM JABALPUR **TEACHING LABS- GROUND FLOOR PLAN**	SCALE 1:500	**kanvinde rai & chowdhury** architects & planners, new delhi	Date JULY'06	





PDPM - IIITDM JABALPUR **TEACHING LABS- FIRST FLOOR PLAN**	SCALE 1:500	**kanvinde rai & chowdhury** architects & planners, new delhi	Date JULY'06	

PDPM - IIIT JABALPUR
AREA BREAK UP

kanvinde rai & chowdhury
architects & planners, new delhi

Date
JUNE'06

PDPM-IIIT JABALPUR- LECTURE HALLS

GROUND FLOOR	AREA
2 LECTURE HALLS @ 220 SQ.M	440 SQ.M
6 CLASS ROOMS @ 111.5 SQ.M	670 SQ.M
STILTED/PARKING	315 SQ.M
CIRCULATION	395 SQ.M
SUPPORTING SPACES	160 SQ.M
TOILETS	180 SQ.M
TOTAL	2160 SQ.M

FIRST FLOOR	AREA
2 LECTURE HALLS @ 315 SQ.M	630 SQ.M
2 LECTURE HALLS @ 220 SQ.M	440SQ.M
6 CLASS ROOMS @ 65 SQ.M	390 SQ.M
CIRCULATION	390 SQ.M
TOILETS	90 SQ.M
TOTAL	1940 SQ.M

GRAND TOTAL 4100 SQ.M

PDPM- IIIT JABALPUR-TEACHING LABS

GROUND FLOOR	AREA
4 LABS @ 375 SQ. M	1150 SQ.M
SUPPORTING SPACES	295 SQ.M
STAIRCASE	85 SQ.M
CORRIDOR	390 SQ.M
PARKING	170 SQ.M
TOTAL	2440 SQ.M

FIRST FLOOR	AREA
4 LABS @ 375 SQ. M	1500 SQ.M
SUPPORTING SPACES	335 SQ.M
STAIRCASE	85 SQ.M
CORRIDOR	440 SQ.M
TOTAL	2360 SQ.M

GRAND TOTAL 4800 SQ.M

AP 36

Name of work : Construction of TEACHING LAB at PDPM IIITDM Jabalpur

APPENDIX I

FRAMED STRUCTURE

Preliminary Estimate based on DPAR 92 & MR

I : Civil Work (Based on Delhi Plinth Area Rates-1992, base price as 100 with Cost Index 205

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
	1	**RCC Framed Structure :**						
		RCC framed structure upto six storey's						
1	1.1.1	Floor height 3.35 m	Sqm	4800	2920	5986	28732800	
	2.0	**Extra for :**						
2	1.2.3	Extra for .85 m of additional floor height beyond normal floor height of 3.35 m.	Sqm	4800	354	726	3485033	
3	1.2.8	Resisting Earthquake forces	Sqm	4800	250	513	2460000	
4	1.2.12	Larger modules over 35 sqm.	Sqm	3121	220	451	1407571	
5	1.2.13	Termite proof treatment (On ground floor only)	Sqm	2700	75	154	415125	
6	1.2.14	Fire fighting	Sqm	4800	185	379	1820400	
		Total A				**Rs.**	**38320929**	
		Building Cost (sl. No.1)				**Rs.**	**28732800**	
	3	**Services :**						
6	3.1	Internal water supply and sanitary installation		28732800	4%		1149312	
7	3.2	External service connections		28732800	5%		1436640	
		Total B				**Rs.**	**2585952**	

		II : Electrical Work	Building cost					
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
8	3.3	Internal electrical installations		28732800	15.00%		4309920	
		Total C		**Total**	**15.00%**		**4309920**	

	3.6	**Extra for superior specifications based on DPAR - 92 :**						
9	3.6.1	Power wiring & plugs.		28732800	4.00%		1149312	
10	MR	Copper wiring		28732800	1.00%		287328	
11	MR	Extra for modular switches		28732800	1.50%		430992	
12	MR	Superior fixtures		28732800	2.50%		718320	
13	3.6.4	Telephone conduits		28732800	0.50%		143664	
14	MR	Extra for networking conduits		28732800	0.50%		143664	
15	MR	Smoke detection system & fire alarm	Sqm.	4800	325		1560000	
16	MR	UPS wiring & distribution	Nos.				600000	
17	LS	Telephone wiring	LS				50000	
18	LS	Cable tray	LS				100000	
		Total D			**25.00%**	**Rs.**	**5183280**	

TOTAL (A + B + C + D) **Rs. 50400081**

Name of work : Construction of TEACHING LAB at PDPM IIITDM Jabalpur

APPENDIX II

Extra for superior specifications & Architectural features

Preliminary Estimate based on Delhi Schedule of Rates 2002 & Market Rate:

		Extra for superior specifications & Architectural features based on DSR 2002 & market rate:						
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	DSR	Extra for kota stone flooring	Sqm.	4350	354	437	1899474	
2	DSR	Extra for vitrified tiles flooring	Sqm.	710	589	727	516423	
3	MR	Extra for Jaisalmer flooring	Sqm.	355	1050	1050	372750	
4	DSR	Extra for Ceramic tiles upto 1500 mm height in Lab only	Sqm.	210	146	180	37797	
5	DSR	Extra for false ceiling - Gypsum	Sqm.	850	417	515	437395	
6	DSR	Extra for Oil bound distemper	Sqm.	11050	25	31	341823	
7	MR	Extra for Aluminium Doors frames	Sqm.	250	540	690	172409	
8	MR	Extra for using aluminium windows	Sqm.	665	950	1213	806808	
9	MR	Extra for Grit Plaster/Spectrum Finish	Sqm.	5105	250	250	1276250	
10	MR	Extra for stone cladding	Sqm.	1005	627	627	630135	
11	MR	Extra for Lamination on door	Sqm.	425	600	600	255000	
		Total				**Rs.**	**6746264**	

APPENDIX III

Extra for Energy Efficient Features

Preliminary Estimate based on Delhi Scheedule of Rate 2002 & Market Rate:

		Extra for Energy Efficient features based on DSR 2002 & market rate:						
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Extra for 300 mm cavity wall	Sqm.	2400	130	130	312000	
2	MR	Extra for Wall insulation treatment	Sqm	615	265	265	162975	
3	MR	Extra for over deck insulation	Sqm.	2350	634	634	1488960	
4	MR	Extra for China mosaic	Sqm.	2350	100	100	235000	
5	MR	Extra for pergola/Trellis	LS	600			1200000	
6	MR	Extra for Structural glazing l/c using insulated glass	Sqm.	115	4000	4000	460000	
		Total				**Rs.**	**3858935**	

Name of work : Construction of TEACHING LAB at PDPM IIITDM Jabalpur

Preliminary Estimate based on Delhi Scheedule of Rate 2002 & Market Rate:

Air Conditioning Work (Appendix-IV)

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Air conditioning works (Low side only)	Ton	60	38000	38000	**2280000**	
		Total				**Rs.**	**2280000**	

Lift (Appendix-V)

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Frieght Lift 1 ton (G+4)	Each	1	775000	1588750	**1588750**	
		Total				**Rs.**	**1588750**	

PRELIMINARY ESTIMATE FOR TEACHING LAB, PDPM IIITDM, JABALPUR

SUMMARY OF COST

S.No.	Description	Amount in Rs.
1	Framed Structure as per Appendix I	50400081
2	Extra for superior specifications & Architectural features as per Appendix II	6746264
3	Extra for Energy Efficient Features as per Appendix III	3858935
4	Air Conditioning Work as per Appendix IV	2280000
5	Frieght Lift 1 ton (G+4)	1588750
	Total (A)	**64874030**
5	Architect Fees @ 5.612% (5% fees+12.24% service tax on fees)	3640730.56
6	Cost of Project Management @ 1.5% of (A)	973110.448
7	Contingencies (Lump sum)	500000
	Grand Total	**69987871**

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Say Rs. 700 Lacs

Prepared by

sd

M/s Kanvinde Rai & Chowdhury

Checked By

sd

T.S. Anand

A.E

Recommended By

sd

Rajeev Garg

S.E

Name of work : Construction of Teaching Labs at PDPM IIITDM Jabalpur.

BREAK UP OF COMPONENT WISE COST

S.No.	Description	Amount in Rs.	Plinth Area in sqm	Cost per Sqm in Rs.	Remarks
1	Basic cost of the building (civil + electrical)	50400081	4800	10500	
2	Additional cost of building due to superior specifications & Architectural features (civil + electrical)	6746264	4800	1405	
3	Energy efficient features	3858935	4800	804	
4	Air Conditioning Work	2280000	4800	475	
5	Frieght Lift 1 ton (G+4)	1588750	4800	331	
6	Architect Fees @ 5.612%	3640731	4800	758	
7	Project Management @ 1.5%	973110	4800	203	
8	Contigencies (lump sum)	500000	4800	104	

t. DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN & MANUFACTURING JABALPUR

Name of work : Construction of Lecture Hall / Class Room Complex.

Head of Account : Chargeable to Plan Budget.

Preliminary estimate amounting to Rs. 661 Lacs (Rs Six Hundred Sixty One Lacs only) including 1.5% cost of project management + Architects Fees @ 5.612% (5% fees + 12.24% service tax on fees) & Contingencies (Rs. Five Lacs only , Lump sum) prepared by M/s Kanvinde Rai & Chowdhury , New Delhi to meet the cost of the above mentioned work.

History :

- The initial brief was discussed based on the student strength in the coming years and it was decided to include two lecture halls of 250 capacity, four of 150 capacity, four classrooms of 75 capacity and six classrooms of 40 capacity along with necessary parking, toilets etc. The resulting design has sought to integrate the three clusters with support facilities around landscaped courts. The built form is envisaged as a two storey development connected by walkways. Parking is restricted to the periphery leaving the central pedestrian circulation spine predominantly pedestrian in nature thereby fostering greater interaction among the student community.

- In the classroom cluster, the 40 seater classrooms were arranged on the first floor above the 75 seater classrooms at ground floor creating a terrace on the outer face. It was suggested that the terrace be made on the inner face that serves as an access corridor with the common roof for both the ground floor and first floor circulation.

A Committee was constituted by the Director vide office order no PDPM IIITDM /2006/340 dated June 27,2006 , to review and go through campus planning of Institute.Copy is placed at **Annexure AP 17** .The Committee s meet on 21-06-06 and subsequently on 29-06-06 in which Architect was also present.. The minutes of meeting are placed at Annexure **AP 18 to AP 20** .The following modifications in the plans presented by Architect were agreed upon

- Additional classrooms of 75 capacities in the stilted cycle path may be created.
- An additional toilet block and staircase near classroom is desirable.
- All loaded stilted structure should be designed carefully

considering the earthquake consideration of latest IS code.

- All floors of all Academic building should have universal excess.

Design & Scope : The design of the proposed building has the following features:

i) The complex will have two Lecture Halls of 250 seating capacity, four of 150 capacity, six class rooms of 75 seating capacity and 6 class rooms of 40 seating capacity.
ii) All the lecture hall shall be centrally air-conditioned with proper acoustic treatment on the wall & ceiling.
iii) Class rooms are non air-conditioned.
iv) Sufficient covered parking for two wheelers in the stilted area is planned in the design.
v) The lecture hall & class rooms are connected through link corridor.
vi) The whole complex is two storied building having two lecture halls of seating capacity 150 and 6 class rooms are 75 seating capacity at Ground Floor, two lecture halls of 150 capacity and 6 class rooms of 40 capacity and two lecture hall of 250 capacity at First Floor.
vii) The complex will have AHU rooms, toilets and office spaces at Ground Floor.
viii) Complex will have Ramp for universal access.

Specification : Brief specifications of work shall be as follows:

i) Designed reinforced cement concrete for structural works.
ii) All in fill walls shall be 300 mm thick cavity wall with insulation.
iii) Flooring
e) Kota stone flooring in corridors, staircases, lecture halls and class rooms.
f) Anti skid ceramic tiles in toilets.
g) Vitrified tiles in toilets.
iv) Glazed tile upto 2.1 meter in toilets.
v) Wash basins in the toilets shall be provided on a granite counter.
vi) Cement based integral water proofing treatment on overdeck insulation with china mosaic on the top.
vii) 35 mm thick laminated flush door shutters on aluminum door frames.
viii) Aluminum windows with insulated glass.
ix) Oil bound distamper for internal painting.
x) For external finish a combination of washed stone grit plaster, spectrum finish and stone cladding.
xi) Pozolonna Portland Cement as per IS specifications for non structural works and Ordinary Portland Cement for structural

works.

xii) CP fittings, white glazed sanitary wares, centrifugal cast iron pipes for sewer lines, GI pipes for water supply lines and PVC overhead tanks, and structure built-in parnalas for rain water.

xiii) False ceiling with gypsum boards to conceal the air-conditioning ducts.

xiv) Acoustic paneling on the walls.

xv) Electrical wiring with copper wire

xvi) Modular switches, energy efficient electrical fixtures.

xvii) Network, telephone connection and UPS wiring.

xviii) Smoke detection system and fire alarms.

Rates : i) Delhi Plinth Area Rates 1992 enhanced by cost index 205 as applicable at Jabalpur by the order of concerned CPWD authority.

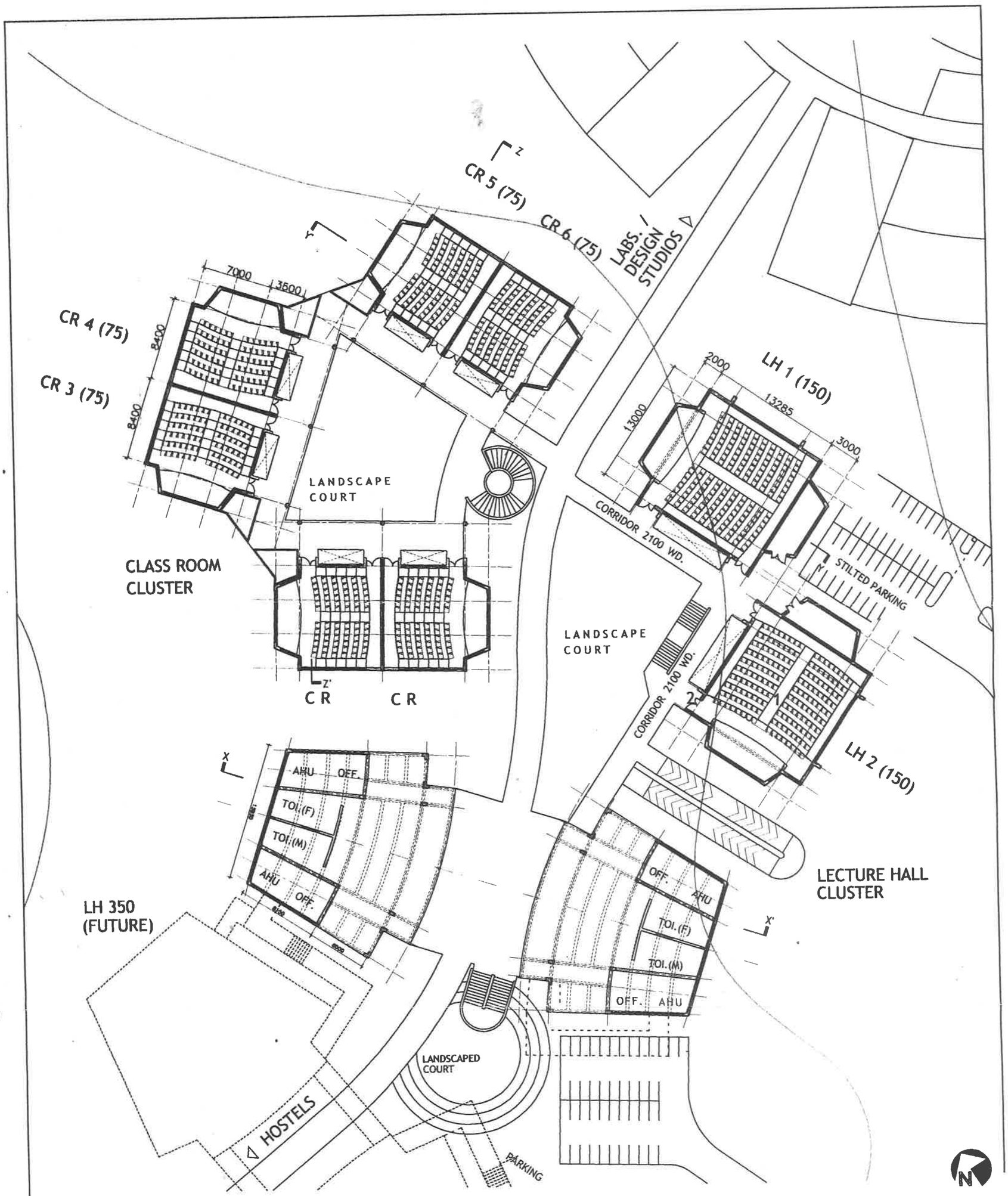
ii) Items not available in the DPAR have been analyzed on DSR 2002 enhanced by 23.49% prevalent cost index and market rates.

Period of Construction : Total eighteen months.

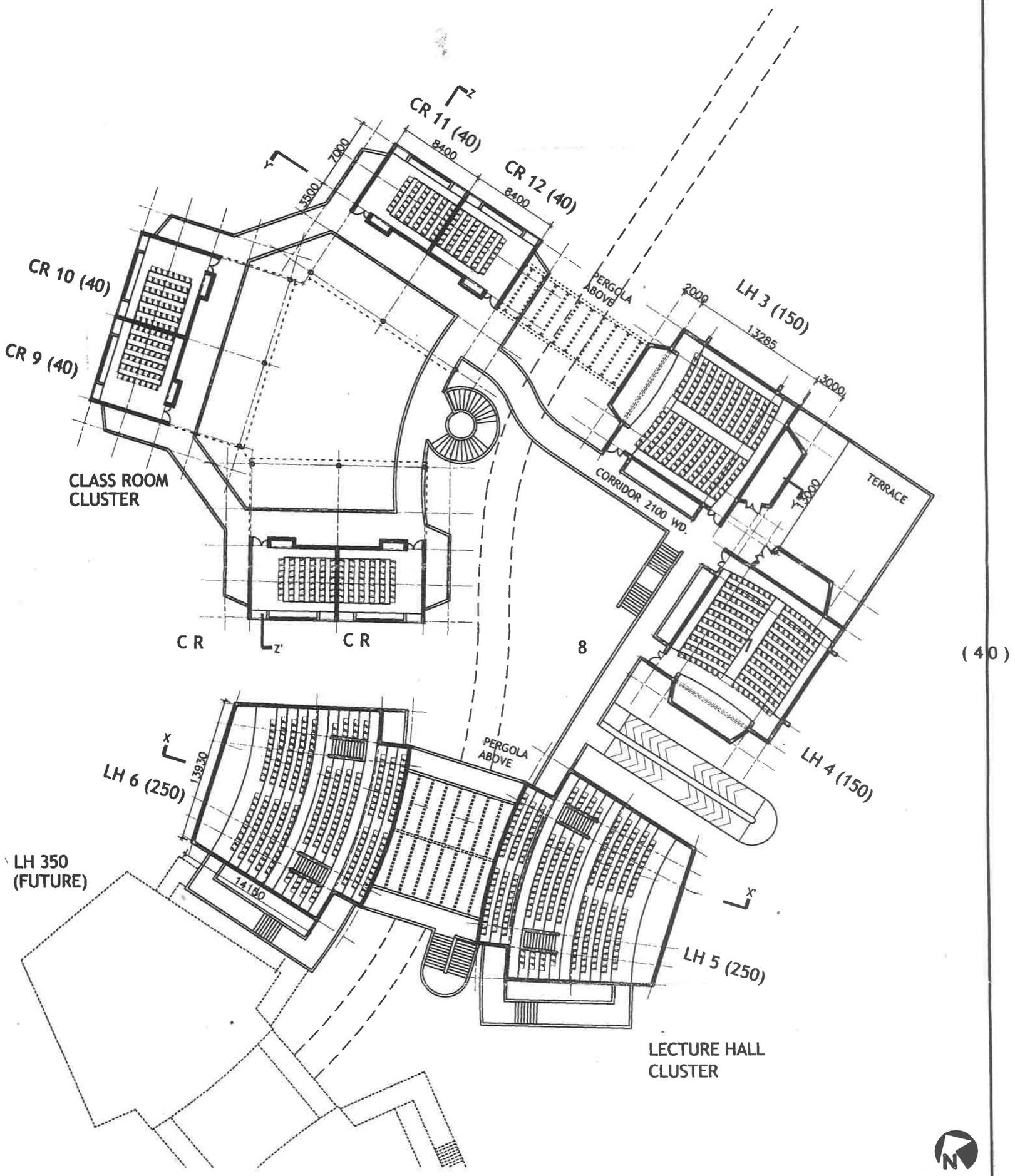
Mode : On contract through call of competitive Tenders.

(T.S. Anand)
AE

(Rajeev Garg)
SE



PDPM - IIIT DM JABALPUR **LECTURE HALL COMPLEX GROUND FLOOR PLAN**	SCALE 1:500	**kanvinde rai & chowdhury** architects & planners, new delhi	Date JULY '06	LH-01



PDPM - IIIT DM JABALPUR **LECTURE HALL COMPLEX FIRST FLOOR PLAN**	SCALE 1:500	**kanvinde rai & chowdhury** architects & planners, new delhi	Date JULY '06	LH-02

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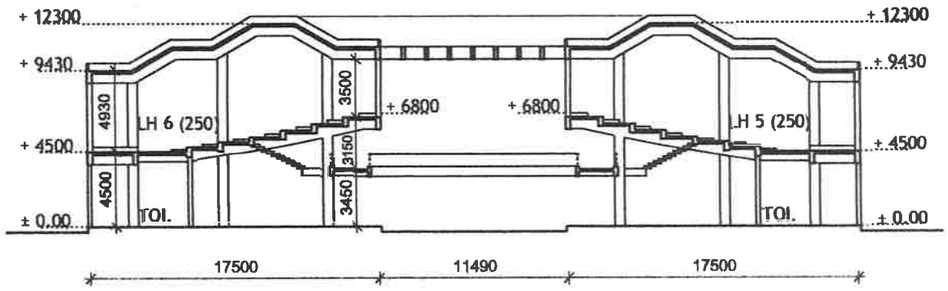

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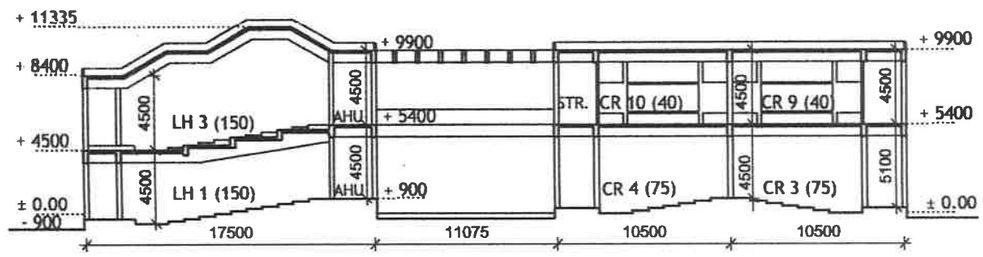

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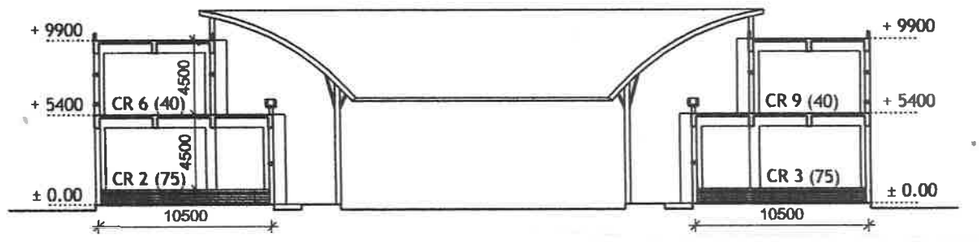

SECTION ZZ'

PDPM - IIIT DM JABALPUR **LECTURE HALL COMPLEX** **SECTIONS**	SCALE 1:500	**kanvinde rai & chowdhury** architects & planners, new delhi	Date JULY '06	LH-03

PDPM - IIIT JABALPUR
AREA BREAK UP

PDPM-IIIT JABALPUR- LECTURE HALLS

GROUND FLOOR	AREA
2 LECTURE HALLS @ 220 SQ.M	440 SQ.M
6 CLASS ROOMS @ 111.5 SQ.M	670 SQ.M
STILTED/PARKING	315 SQ.M
CIRCULATION	395 SQ.M
SUPPORTING SPACES	160 SQ.M
TOILETS	180 SQ.M
TOTAL	2160 SQ.M

FIRST FLOOR	AREA
2 LECTURE HALLS @ 315 SQ.M	630 SQ.M
2 LECTURE HALLS @ 220 SQ.M	440SQ.M
6 CLASS ROOMS @ 65 SQ.M	390 SQ.M
CIRCULATION	390 SQ.M
TOILETS	90 SQ.M
TOTAL	1940 SQ.M

GRAND TOTAL 4100 SQ.M

PDPM- IIIT JABALPUR-TEACHING LABS

GROUND FLOOR	AREA
4 LABS @ 375 SQ. M	1150 SQ.M
SUPPORTING SPACES	295 SQ.M
STAIRCASE	85 SQ.M
CORRIDOR	390 SQ.M
PARKING	170 SQ.M
TOTAL	2440 SQ.M

FIRST FLOOR	AREA
4 LABS @ 375 SQ. M	1500 SQ.M
SUPPORTING SPACES	335 SQ.M
STAIRCASE	85 SQ.M
CORRIDOR	440 SQ.M
TOTAL	2360 SQ.M

GRAND TOTAL 4800 SQ.M

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kanvinde rai & chowdhury
architects & planners, new delhi

Date
JUNE'06

Name of work : Construction of LECTURE HALL COMPLEX at PDPM IIITDM, Jabalpur.

APPENDEX I
FRAMED STRUCTURE
Preliminary Estimate based on DPAR 92 & MR.

I : Civil Work (Based on Delhi Plinth Area Rate-1992, Base price as 100 enhanced with Cost Index = 205)								
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
	1	**RCC Framed Structure :**						
		RCC framed structure upto six storey's						
1	1.1.1	Floor height 3.35 m	Sqm	4100	2920	5986	24542600	
	1.2	**Extra for :**						
2	1.2.3	Extra for 1.15m of additional floor height beyond normal floor height of 3.35m.	Sqm	3377	479	982	3317222	
		Extra for 1.45m of additional floor height beyond normal floor height of 3.35m.	Sqm	636	604	1239	787717	
		Extra for 0.45m of additional floor height beyond normal floor height of 3.35m.	Sqm	755	188	384	290203	
3	1.2.8	Resisting Earthquake forces	Sqm	4100	250	513	2101250	
4	1.2.12	Larger modules over 35 sqm.	Sqm	2480	220	451	1118480	
5	1.2.13	Termite proof treatment (On ground floor only)	Sqm	2872	75	154	441570	
6	1.2.14	Fire fighting	Sqm	4100	185	379	1554925	
		Total A				**Rs.**	**34153967**	
		Building Cost (sl. No.1)					**24542600**	

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
	3	**Services :**						
7	3.1	Internal water supply and sanitary installation		24542600	4%		981704	
8	3.2	External service connections		24542600	5%		1227130	
		Total B				**Rs.**	**2208834**	

II : Electrical Work

SL. NO.	Code	Description	Unit	Building cost	Rate	Indexed Rate	Amount	Remarks
9	3.3	Internal electrical installations		24542600	15.00%		3681390	
		Total C		**Total**	**15.00%**		**3681390**	

	3.6	**Extra for superior specifications based on DPAR - 92 :**						
SL. NO.	**Code**	**Description**	**Unit**	**Qty.**	**Rate**	**Indexed Rate**	**Amount**	**Remarks**
10	3.6.1	Power wiring & plugs.		24542600	4.00%		981704	
11	MR	Copper wiring		24542600	1.00%		245426	
12	MR	Extra for modular switches		24542600	1.50%		368139	
13	MR	Superior fixtures		24542600	2.50%		613565	
14	3.6.4	Telephone conduits		24542600	0.50%		122713	
15	MR	Extra for networking conduits		24542600	0.50%		122713	
16	MR	Smoke detection system & fire alarm	Sqm.	4100	325		1332500	
17	LS	UPS wiring & distribution	LS				200000	
18	LS	Cable tray					75000	
19	LS	Telephone System wiring					50000	
		Total D			**25.00%**		**4111760**	
		TOTAL (A + B + C + D)				**Rs.**	**44155951**	

Name of work : Construction of LECTURE HALL COMPLEX at PDPM IIITDM, Jabalpur.

APPENDIX II

Extra for superior specifications & Architectural features

Preliminary Estimate based on DSR 2002 & market rate:

		Extra for superior specifications & Architectural features based on DSR 2002 & market rate:						
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	DSR	Extra for kota stone flooring	Sqm.	4875	354	437	2128721	
2	DSR	Extra for vitrified tiles flooring	Sqm.	250	589	727	181839	
3	DSR	Extra for Granite flooring	Sqm.	100	1414	1746	174627	
4	DSR	Extra for false ceiling - Gypsum	Sqm.	2414	417	515	1242203	
5	DSR	Extra for Oil bound distemper	Sqm.	11000	25	31	340277	
6	MR	Extra for wall panelling - Acoustic	Sqm.	2285	825	825	1885125	
7	MR	Extra for Aluminium Doors frames	Sqm.	275	540	690	189649	
8	MR	Extra for using aluminium windows	Sqm.	250	950	1213	303311	
9	MR	Extra for Lamination on door	Sqm.	468	600	600	280800	
10	MR	Extra for stone cladding	Sqm.	1900	627	627	1191300	
11	MR	Extra for Grit Plaster/Spectrum Finish	Sqm.	4100	250	250	1025000	
		Total				**Rs.**	**8942852**	

Name of work : Construction of LECTURE HALL COMPLEX at PDPM IIITDM, Jabalpur.

APPENDIX III

Extra for Energy Efficient Features

Preliminary Estimate based on DSR 2002 & market rate:

Extra for Energy Efficient features based on DSR 2002 & market rate:								
SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Extra for 300 mm cavity wall	Sqm.	3000	130	130	390000	
2	MR	Extra for Wall insulation treatment	Sqm	1728	265	265	457920	
3	MR	Extra for over deck insulation	Sqm.	1820	634	634	1153152	
4	MR	Extra for China mosaic	Sqm.	1525	100	100	152500	
5	MR	Extra for roof cover on court yard	Sqm.	725			1450000	
		Total				**Rs.**	**3603572**	

Air Conditioning Work (APPENDIX IV)

SL. NO.	Code	Description	Unit	Qty.	Rate	Indexed Rate	Amount	Remarks
1	MR	Air conditioning works (Low side only)	Ton	120	38000	38000	4560000	
		Total				**Rs.**	**4560000**	

Name of work : Construction of LECTURE HALL COMPLEX at PDPM IIITDM, Jabalpur.

SUMMARY OF COST

S.No	Description	Amount in Rs,
1	Framed Structure as per Appendix I	44155951
2	Extra for superior specifications & Architectural features as per Appendix	8942852
3	Extra for Energy Efficient Features as per Appendix III	3603572
4	Air Conditioning Work as per Appendix IV	4560000
	Total	**61262375**
5	Architect Fees @ 5.612% (5% fees+12.24% service tax on fees)	3438044
6	Cost of Project Management @ 1.5% of (A)	918936
7	Contingencies (Lump sum)	500000
	TOTAL	**66119355**

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Prepared by

sd

M/s Kanvinde Rai & Chowdhury

Checked By

T.S. Anand
A.E

Recommended By

Rajeev Garg
S.E

Name of work : Construction of LECTURE HALL COMPLEX at PDPM IIITDM, Jabalpur.

BREAK UP OF COMPONENT WISE COST

S.No.	Description	Amount in Rs.	Plinth Area in sqm	Cost per Sqm in Rs.	Remarks
1	Basic cost of the building (civil + electrical)	44155951	4100	10770	
2	Additional cost of building due to superior	8942852	4100	2181	
3	Energy efficient features	3603572	4100	879	
4	Air Conditioning Work	4560000	4100	1112	
4	Architect Fees @ 5.612%	3438044	4100	839	
5	Project Management @ 1.5%	918936	4100	224	
6	Contigencies (lump sum)	500000	4100	122	