

REPORT
ON
COURT BUILDINGS



COMMITTEE ON PLAN PROJECTS
(BUILDINGS PROJECTS TEAM)
NEW DELHI
November, 1962

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(Buildings Projects Team)
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November 1962.

Composition of the Buildings Projects Team

Leader

Shri S.K.Patil, Minister for Food and Agriculture.

Members

Shri Sarup Singh, I.S.E. (Retd.), formerly Director
National Buildings Organisation.

Shri N.G.Dewan, I.S.E., Chief Engineer, Central
Public Works Department.

Maj.Genl. Harkirat Singh, Engineer-in-Chief, Army
Head Quarters, New Delhi.

* Dr. Eng.A.Carbone, Consulting Engineer, Calcutta.

** Shri C.P.Malik, Director, National Buildings
Organisation (ex-officio).

Member Secretary

Shri T.S. Vedagiri, Superintending Engineer.

Deputy Secretary

Shri M.D.Paul Manickam, Executive Engineer.

* Shri N.V.Modak was appointed as Member in place of
Dr. A.Carbone who expired in Oct'62.

** Shri C.B.Patel took over on 1st Oct'62 in place of
Shri C.P.Malik transferred.

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proper approach to the study of requirements and planning of space and the structure itself. I hope the report will be of great help to the people incharge of design of court buildings in future.

I take this opportunity of thanking Shri C.P. Malik, Chairman of the Panel and the Members for the trouble they have taken in preparing this report.

Yours sincerely,

S.K. PATIL

Shri Lal Bahadur Shastri,
Minister for Home Affairs &
Chairman, Committee on Plan Projects,
Government of India,
New Delhi.

REPORT ON COURT BUILDINGS

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INTRODUCTION

1.1 The Committee on Plan Projects has been engaged for the past few years on the evaluation and critical analysis of different types of projects with a view to spelling out requirements on rational basis, suggesting the laying of norms for planning and making other connected proposals for optimum utilisation of money and materials. Detailed studies have been undertaken on multi-storeyed buildings, residential buildings, industrial estates, storage structures etc. and reports have been published. One, amongst the subjects taken up for study, is court buildings.

1.2 In the Second Plan, a few court buildings have been constructed. Notable among those newly constructed is the multi-storeyed court building in Delhi. Adoption of multi-storeyed buildings for courts is a departure from the traditional style and has been necessitated by the pressure on land. This brings in certain problems like schematic arrangement of court rooms, juxtaposition of waiting space, provision of circulation space etc. for which satisfactory solution has to be found by a detailed study of requirements. As a number of court buildings may have to be put up in future, the Committee on Plan Projects thought it desirable to make a detailed study of court buildings in

general and lay down requirements, norms on design efficiency method of cost reduction etc. A Panel with the following composition was appointed for this purpose under the Chairmanship of Shri C.P. Malik, the then Director, National Buildings Organisation and Member of the Buildings Projects Team.

Shri C.P. Malik, Member, B.P. Team.	Chairman
Justice H.R. Khanna, High Court, Punjab.	Member
Shri R.R. Singh, IAS, Jt. Educational Adviser, Ministry of Education, New Delhi.	Member
Shri S.K. Joglekar, Chief Architect, C.P.W.D., N. Delhi.	Member
Shri Tara Chand Mathur, President of the Bar Association, Delhi.	Member
Shri T.S. Vedagiri, Superintending Engineer & Member-Secretary, B.P. Team.	Member- Secretary.

1.3 To start with, the Panel obtained information regarding court buildings constructed all over the country. The analysis of information so collected is given in Appendix 1.

1.4 To acquaint themselves with the various functional and other aspects of courts, the Panel visited selected court buildings in the country, and

had discussions with Judges, Lawyers and the litigant public. These site inspections and discussions brought out that the concepts of requirements vary from place to place and that no scientific enquiry on the subject has been carried out in the past. It was seen that some of the rooms were lavishly designed, their shape was not suited for the required purpose thereby leading to low space utilisation; facilities for the lawyers and for the public were not carefully thought of and the relative positioning of the various facilities was defective; there was sharp criticism of the court buildings by various sections of the users. These factors confirmed the need for a systematic approach to the problem.

1.5 The Panel instituted a few detailed studies of court buildings with a view to tracing the various flow patterns, sizes and inter-relationships of facilities etc. Based on these and the site inspections the Panel has come to certain conclusions as to the functional requirements of buildings, the method of planning them out and the avenues of possible cost reduction. These are contained in the following sections of the report.

1.6 The Panel is extremely thankful to the State Governments and the judicial authorities for the cooperation extended for on-the-spot

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study and inspections and the information they have supplied.

Section 2.

Classification and Space Requirements of Courts

2.1 The courts in India may be divided into three categories: those dealing with (i) criminal cases, (ii) civil cases, and (iii) revenue cases. Functions vary accordingly but the fundamentals of the layout are fairly common.

Further based on the extent of space requirements, the courts can be divided into the following four classes:

<u>Category</u>	<u>Civil</u>	<u>Criminal</u>	<u>Revenue</u>
Class I	District Judge	Sessions Judge	Commissioner
II	Adtl. Dist. Judge.	District Magistrate Adtl. Sessions Judge	Collector
III	Senior Sub-Judge or equivalent	Asst. Sessions Judge Adtl. District Magistrate	-
IV	Sub-Judges, Munsiffs & Judges of Small Causes.	Subordinate Magistrate & Hony. Magistrate	Asst. Collector

The post of the District and Sessions is normally a combined one and held by the same person. Therefore, only one court room is required. Similar is the case with the Additional District and Sessions Judges and also with the Collector and District Magistrate.

2.2 General Requirements:

As mentioned above, whether it be a civil, criminal or revenue court, the functional requirements are more or less the same. The size has to vary to suit the quantum of work. In contrast to civil courts, all criminal courts need a prisoners' dock and appurtenant facilities.

The normal requirements of a court may be stated as follows:-

I. Judicial Wing

- 1) Court
- 2) Retiring room for the Judge
- 3) Space for
 - a) Steno
 - b) Reader (Sits mainly in the court room)
 - c) Translator (only in Sessions Court)
 - d) Copy Clerk (-do-)
 - e) Ahlmad
 - f) Witnesses
- 4) Judicial lock-up
- 5) Room for Government Pleader
- 6) Room for prosecuting Inspector (only in Magistrate's Court)

II. Administrative Wing

- 1) Library

- 2) Space for
 - a) Superintendent.
 - b) English Clerk & Asst. English Clerk
 - c) Typist
 - d) Mazir
 - e) Copyists and leave reserves
- 3) Malkhana (Property rooms)
- 4) Record room for
 - a) Records
 - b) Record Keeper
 - c) Inspection Clerk (for inspection of records)
- 5) Stationery and form store
- 6) Mali & Sweeper (Tools)

III. Lawyers Wing

- 1) Bar Room
- 2) Library
- 3) Consultation room divided into cubicles
- 4) Accommodation for lawyers' clerks

IV. Public Amenities

- 1) Entrance Hall
- 2) Enquiry Office
- 3) Waiting space adjacent to the court room
- 4) Waiting shed with lavatories
- 5) Post Office

V. Ancillaries

- 1) General Canteen
- 2) Accommodation for petition writers, Scribes and Typists.
- 3) Stamp Vendors' booths
- 4) Space for parking cars, public conveyances, tongas, cycle stand and hawkers.

The exact space requirements under the above heads would have to be assessed individually for each station ^{and} \angle will depend upon the magnitude of litigation _{on} \angle the fact whether there is one or more courts grouped. While doing so, provision also be made on a rational basis for future expansion. The Panel feels that the following should be the basic considerations for the design of various units.

2.3 Judicial Wing

2.3.1 Court Room: This is the most important unit of a court building and requires careful planning. The Panel has studied various plans and feels that the following are the basic requirements.

- 1) The dais to be spacious enough to accommodate Judges, Reader's and Steno's seats and tables, and some library shelves.
- 2) Witness Box .
- 3) Prisoners' Dock
- 4) Lawyers seats and tables
- 5) Seating accommodation for the public and the press.

Based on the layouts prepared by the Panel, it is considered that the length of court rooms should be 45' for Class I, 40' for Class II & 35' to III & IV types except in the case of Small Causes Court where it will be 40'. The width should be 25 ft. for the criminal court and 20 ft. for a civil court, since the former needs additional accommodation for prisoners' dock.

An oblong room obviously is better suited for efficient space utilisation, than a room of squarish shape, but it should not be too narrow, as the circulation of the main part of the court must not be cramped. A model layout prepared by the Panel is illustrated in Appendix II.

2.3.2. Dais

The dais should consist of:

a) a masonry platform, the floor of which should be kept two steps, i.e. 15", higher than the floor of the court room; the tables and chairs for the reader and the stenographer to be kept at this level. The table is of 30" standard height. The masonry platform should be built across the full width of the court room. Its width (depth) can be 12' for courts of Class I and II types and 10' for others.

b) a subsidiary raised wooden or masonry platform over the main masonry platform mentioned above; and level of this to be at 3 steps, i.e. 21" higher than the floor of the court room. The raised platform should be sufficiently long and wide to contain the table and the chair of the presiding officer, leaving sufficient room for a gangway at the back.

The judge should be so seated that he has the command of the proceedings and at the same time his reader and steno should be able to serve him quickly.

The lawyer pleading a case should also be able to address the judge conveniently and receive his attention. While contesting the cases the lawyers have to refer to books and files. For this purpose it will be advantageous if a writing desk is provided along the rail of the dais. There should be sufficient space for the parties to the suit, to be able to follow the proceedings.

The seating arrangements for the waiting lawyers should be ample and convenient to enable them to take intelligent interest in the proceedings.

The public is entitled to watch the proceedings and at times some sensational cases attract large number of people. It is difficult to cater for such

occasions and the planning should be confined to normal requirements. After due consideration, it has been decided to provide accommodation for the following number of persons in the various classes of the courts:-

Class I	-	40	number	of	persons
Class II	-	30	"	"	"
Class III & IV	-	20	"	"	"

The seats for the public should be raised in tiers at an angle of 30° to permit a clear view of the dais. More seats when required can be provided along the long wall of the court facing the prisoners' dock. In the court rooms of the Sub-judges, one row of seats at the rear should be sufficient for the public.

The seats may provide the minimum comfort. They are meant for persons having special interest in the cases.

2.3.3 Witness Box: There is at present considerable variation in the number of witness boxes provided in the courts and their location. The Panel considers that criminal courts necessarily require two such boxes, one for the accused and the other for the witness but in civil courts only one is enough. However, two are generally provided to maintain uniformity and interchangeability when necessity

arises, but this does not seem to be necessary.

The floor of the witness box may be kept a little higher, say 3", than the floor of the court room.

2.3.4 Lawyers Table: The table may be 16 ft. long and width may be 4 to 5 ft. ; the height may be 2'-6". The table may be so placed that the lawyer sitting nearest to the dais catches the eye of the Judge conveniently, without craning his neck and that a minimum distance of about 6 ft. is left between the table and the dais.

2.3.5 Prisoners' Dock: This shall be placed close to the long wall as indicated in the plan.

Prisoners' Dock is required only in criminal courts.

2.3.6 Lighting: If reliance is placed on natural lighting, the windows should be placed in the long walls. To prevent glare, they should neither face nor be at the back of the dais.

It would be advisable to avoid placing of windows at low levels.

Natural lighting can be supplemented either by roof lights or clear-storey windows above the side windows. In the event of limited window space and insufficient natural lighting, artificial lighting should be adequately provided.

2.3.7 Ventilation: Needless to state that adequate ventilation is most essential and if there is difficulty in obtaining this by natural means, mechanical ventilation system should be installed, unless the rooms are airconditioned.

2.3.8 Acoustics: For court rooms, good acoustical treatment is very essential. To prevent echo, the height of the room may vary between 14 ft. to 16 ft. depending upon the size of the court room. The ceiling should be flat or splayed at the walls only. Deep beams transversing the ceiling parallel to the dais should be avoided.

2.3.9 Doors: The number of doors in a court room should be kept to the minimum to avoid duplication of control. There should be no door facing the dais.

A door at the back of the dais is necessary for access to the retiring room. Another door may be placed in the long wall close to the seating arrangements reserved for the public, which would be the main access to the court room. This could be half glazed. Third door near dais may be panelled.

It is presumed that the court would not be situated in congested areas of a town, where there is heavy traffic movement. Where this is unavoidable, the court rooms should be sufficiently set back to prevent disturbances from street noise; and doors and windows along a busy public street must be avoided. This will need careful orientation of the court building. A quiet atmosphere is absolutely essential.

2.3.10 Petition Box: It is observed that the functioning of the court is often interrupted by the litigants, handing over petitions to the officials of the court. To obviate this inconvenience, it is suggested that a petition box may be fitted close to the wall on the dais so that litigants can drop in their petitions into the box from outside the Court through a slit made in the wall. The position of the box is indicated in the suggested plan of the Court Room.

2.3.11 Retiring room of the Judge: The retiring room should be so placed as to afford direct access from the dais. It should have an attached lavatory.

The area of the room may be about 180-200 sft. This room should have a wardrobe and it should be so located as to ensure privacy and quietness.

2.3.12 Steno's Room: The stenographer deals with confidential papers. A room of about 60 sft. should

be provided for him in a suitable place minimising intrusion. It should be situated close to the judge's retiring room.

2.3.13 Library: The administrative wing of the courts should provide for a library for the exclusive use of court officials. The size of the room may be 200 sft.

2.3.14 Government Pleader: A separate room of about 120 sft. should be provided for the Government pleader or public prosecutor. It shall be located close to the Sessions Judge's Court since he is required by the Sessions Judge very often.

In magistrate's court a room of 120 sft. may be provided for the prosecuting inspector or prosecuting Sub-inspector. In bigger districts one additional room may be provided for the prosecuting DSP.

2.3.15 Court Offices: These are to accommodate the subordinate officials of the court, i.e. the Ahlmad, Reader and Translator with room for the current records. A floor area of 150 to 180 sft. would suffice. It should be placed close to the main court room, to minimise time taken by the staff in morning to the court room and back.

A separate room of a floor area of about 120 sft. should be provided for the Superintendent, who is the head of the subordinate officials of the court.

The following further accommodation should be provided. A room of about 150 sft. for the English clerks and the typists; another room of about 200 sft. for the copyists; a third room of about 150 sft. for the Nazir and his assistants, fitted with a cash chest and a fourth room of about 150 sft. for forms and stationery. A small room of 50 to 60 sft. should be reserved for gardener's and sweeper's implements.

2.3.16 Malkhana: This is intended for the storage in safe custody of properties 'attached' by the court, the deposited arms and cash. The number and sizes of the rooms depend upon the extent and the nature of litigation current in a place. An area of 300 sft. may generally be found sufficient. The internal arrangements should be such that the articles can be stored and identified easily, when required to be removed.

In addition to the room space, sheds covering an area of about 1,000 sft. may be provided for the storage of large articles like carts and for accommodating live stock etc.

Covered shelter should be provided for the chowkidar or the police sentry.

2.3.17 Record Room: Every court is to be provided with suitable accommodation for the permanent records. The space required depends not only upon the number of courts, but also on the pattern and volume of litigation prevailing in a district. It is not possible to lay down specifically any formula for space requirements. There are wide variations from district to district, and therefore it is advisable that before deciding on the space to be provided, the rate of growth of records should be studied. The district authorities should be in a position to supply the necessary information. The future requirements can be based on 12 years growth after making due allowance for records that can be destroyed according to Government instructions. Pruning of records is frequently lost sight of.

Structurally, it is economical to place the record room on the ground floor. The record room however does not need the same ceiling height necessary as is for ordinary rooms. In case of buildings of more than two storey height, it is economical to put all the records in a separate block with

ceiling heights of about 8 ft. Roughly speaking, it is possible to put four storeys of record rooms in a three storey building.

It has been observed that most of the record rooms are fitted with permanent wooden racks, with aisles about 2 ft. to 3 ft. between racks. This does not result in good space utilisation. Sliding racks as per sketch in Appendix III may be installed. This will insure a minimum space utilisation of 60%.

Record Keeper: Records room should have space provided for the tables and chairs for the record keeper and the inspection clerk.

2.3.18 Judicial lock-up: There should three lock-up cells for the undertrial prisoners, with necessary sanitary conveniences. The capacity of the cells depends upon the number of Courts and local requirements. Normally 3 cells of 100 sft. each should be adequate. If possible, they should be so located as to afford direct access to the dock in the court rooms. In any case, the cells should be situated close-by.

2.4 Lawyers Wing: The accommodation provided for lawyers varies from place to place. In many places, there are complaints that suitable accommodation has not been given for lawyers in the absence

of which they have to put up with considerable amount of inconvenience in their day to day work. Accommodation for lawyers is therefore a necessity. Where courts are ^{grouped,} the lawyers accommodation can be common to all and can be so situated that all the courts are easily accessible. The present tendency however is to put all the courts in the same building in which case the lawyers block can also form a part of the same building and be suitably located.

The accommodation in the lawyers block should consist of (a) bar room (b) library (c) consultation room (d) space for lawyers' clerk and (e) lawyers' chambers. The bar room also serves as lounge for lawyers. Accommodation at the rate of 10 sft. per person for $\frac{1}{2}$ of the strength of the bar appears adequate for the purpose. At most of the places 500 to 600 sft. is enough. Exceptional cases may be dealt with individually on the basis of a detailed study. Within this a small room may be earmarked for the staff of the Bar Association. Close to the bar room, a smaller room of about 150-200 sft. may be provided with washing facilities (two or three wash basins) to enable the lawyers to take their lunch.

The bar library should have an area of 500-600 sft. It will give an area of 200 sft. for stocks and 300-400 sft. for reading which appears to be reasonable. It is necessary to have some chambers for lawyers which may be let out on no-profit no-loss basis.

It is common practice that while each of the senior lawyers has a separate chamber, the junior lawyers ^{grouped} together and have a big room for their use. It will therefore be advisable if two types of rooms, namely 10'x8' for individual lawyers and 10'x15' for groups of lawyers are constructed. The actual number of each type of room will depend upon the need of the particular place. To give a rough indication, it will be prudent to plan for rooms to accommodate 10% of the bar strength. In bigger cities, the percentage may, however, be more.

The Panel was told that there is need for consultation rooms adjoining to bar room. The Panel feels that the necessity for them may not arise in case adequate number of chambers are provided. In case where chambers are inadequate, it may be desirable to provide for 4 to 6 cubicles along the side of the bar room for consultation purposes.

An important item which has been often overlooked is the accommodation for lawyers' clerks. An open shed close to the bar room may be provided for.

2.5 Public amenities: The amenities for public include (a) entrance hall and enquiry office (b) waiting space and (c) canteen.

In many cases, lavish entrance halls have been designed which were intended to serve as waiting space for litigants. The litigants, however, preferred to wait around the court rooms and along the corridors nearabout rather than wait in the entrance hall. It appears reasonable to provide for sufficient waiting space close to courts instead of making entrance hall unduly large. A reception counter can be provided in the entrance hall where a number of courts are grouped in a building. In other cases, two or three location maps should be provided at the entrance so that the public can identify the various sections.

Waiting accommodation for litigants is an important requisite of court buildings. In some cases accommodation has been provided for litigants outside the court buildings, but it was noticed that these are rarely made use of by bonafide litigants. Provision of

writing space close to the court room seems to be necessary. Wherever possible, waiting space should be common to two courts. An area equal to court room which will include toilet facilities for the purpose seems to be necessary.

It is also necessary to have a canteen in the court compound. It is preferable to locate it away from the main building. It should be capable of being used by lawyers, officials of the court and the litigant public.

2.6 Ancillaries: The ancillary accommodation in court buildings will include accommodation for petition writers, typists and draftsmen, space for stamp vendors, cycle sheds and garages. In many of the courts visited, no accommodation has been provided for the petition writers or stamp vendors. This inadequacy was brought to the notice of the Panel at several places. As these are persons who are directly connected with the day to day functioning of the court, it is necessary to provide suitable accommodation for them. Connected as these people are with the lawyers, accommodation for them should be nearer the lawyers block. A few cubicles along the compound wall with lean-to roofing would be adequate for this purpose.

Provision for cycle-stand should normally be made. Covered sheds for cycles and a couple of garages are essential. In addition, open parking space for cars may be provided.

2.7 Services: Drinking water facilities were not adequate in the courts visited by the Panel. In bigger courts, drinking water fountains should be placed at suitable locations and recesses and service connections for this must be provided at the stage of planning itself.

It is necessary to have a public telephone booth in the premises. It can be advantageously situated in the entrance hall itself. A post pillar also should be located near the entrance for the convenience of the public.

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K.N. BHASIN

Section 3.

Layout, structural arrangement and specifications

3.1 In the earlier section, we have listed the space requirements of different sections of the court buildings. The logical placing of the various sections is equally important though very often it is lost sight of in actual practice. The juxtaposition of the various facilities depends upon the inter-relationships, intensity of movements etc. The suggested schematic arrangement of the various facilities is given in Appendix IV.

3.2 Normally, courts are of single storeyed construction. The Panel, however, would recommend that district courts should be two storeyed from the point of view of having zonal divisions within the building itself. The court rooms which constitute the silent zone may be situated in the first floor while the library, administration and other supporting facilities can be placed in the ground floor. This arrangement was noticed in one of the district courts and was found to be quite satisfactory.

3.3 In bigger towns, where land is very costly, it becomes imperative to go in for multi-storeyed construction. This brings in its wake a number of problems. A recently

constructed multi-storeyed court building was planned in such a way that courts were in one wing, and office and other supporting facilities were in another wing. As the height of floors in the court wing was different from that of the other, it created problems of inter-sectional movement. Further, the courts being situated in 7 floors, there was the problem of over-crowding in the lifts. If there was any break-down in lifts, the litigant public, lawyers and judges had to go up the staircases all the way which was highly unsatisfactory. It therefore seems desirable to accommodate the courts on one or two floors preferably on the first and second floors keeping the offices and supporting facilities on the upper floors. The ground floor can conveniently accommodate the library, bar room, record room etc. Some structural difficulty may be met with in an arrangement of this type. A suggested arrangement for overcoming ^{such} difficulties is given in Appendix V.

3.4 The arrangement of staircases and corridors in a court building requires slightly different consideration than that for other buildings. The main reason for this will be the volume and composition of the crowd that frequents the court buildings. Provisioning of very wide

staircases and corridors will not solve the problem. Studies have proved that evacuating capacity of staircases does not proportionately increase beyond a width of 5'. It will, therefore, be advisable to have two staircases, one for traffic upward and another for traffic downward. The corridors also need not be ^{wider} \angle than 8'. A provision of central railing will help in regulating the flow of traffic better. It is not advisable to have long corridors. ^{These} \angle should be suitably broken.

3.5 Location of court and land area required:

The court premises should be located in a place which is accessible and at the same time afford the desired degree of calmness. As far as possible the court should be so located near the town that the future development of town does not envelop the court building and create an atmosphere of congestion.

The campus of the court should have room for expansion and sufficient open space for locating ancillary facilities. The Panel would recommend that the plat coverage for the court buildings with ancillaries should be about 25%.

3.6 Design Efficiency

A detailed space analysis of the plans of a number of court buildings, given in Appendix I, shows that the percentage under carpet area

varies from 36 to 70 and from 10 to 44 under circulation area. Such wide variations indicate lack of thoughtful planning and illustrate the need for setting up norms for space planning.

The Committee on Plan Projects had studied a number of public office buildings and concluded that the percentage of carpet area (i.e. total floor area minus sanitary accommodation and circulation space for lifts, staircases, corridors and entrance halls) to the total built up area, should be 65 to 75.

The Panel concedes that the circulation area in a court building should be slightly more than what will do for an office building. It therefore suggests that design of court buildings should conform to the following norms which would lead to better space planning and consequent reduction in cost.

Carpet area:	60% to 70%	of Built up area
Sanitary accommodation:	5%	-do-
Circulation:	15% to 20%	-do-
Wall area:	10% to 15%	-do-

3.7 Courts are of course important buildings and should be treated as such. It is however, not necessary to waste money on unnecessary embellishment such as stone masonry, marble flooring etc. It should be the endeavour of architects

to impart individuality to the court buildings through proper architectural planning instead of taking recourse to costly treatment. From the point of view of economy, it is necessary to restrict the extent of expenditure on non-functional items to about 1½% of the cost of the building.

3.8 The complaints that are often voiced about the high cost of building can be mostly attributed to the lack of proper approach to the study of requirements, planning of space, structure etc. In this report we have tried to give certain ideas as to what the requirements of different court buildings should and how they should be planned. Regarding structural economy, a number of points have been mentioned in the report on multi-storeyed buildings. The recent publication of the Committee on Plan Projects entitled 'Scheme of Cost Reduction' gives comprehensive ideas about scientific cost reduction. With these, it is hoped that the planners, architects and engineers would be in a position to plan the court buildings of the future with the desired degree of economy and efficiency.

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Keshaw Bhasin

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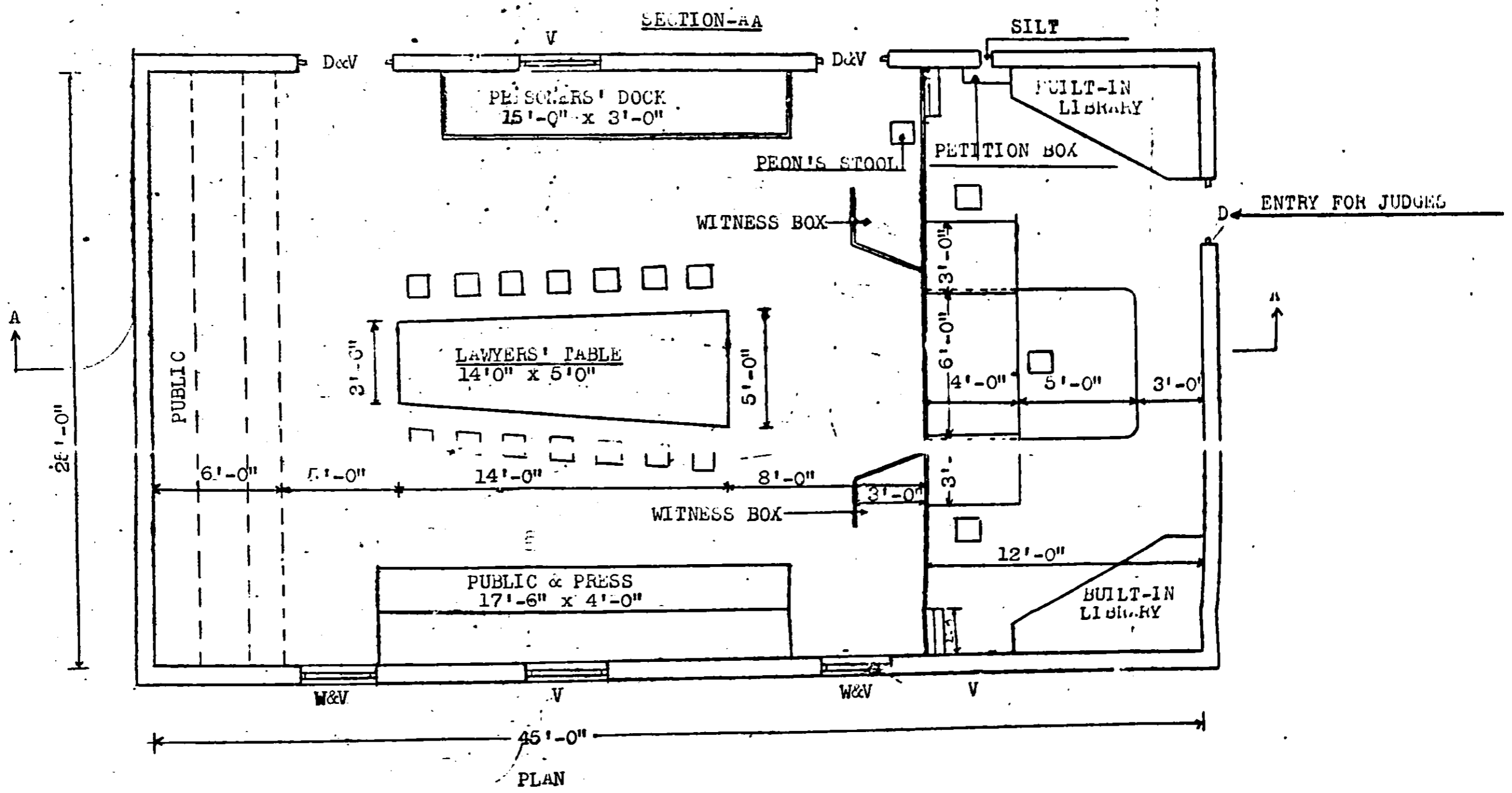
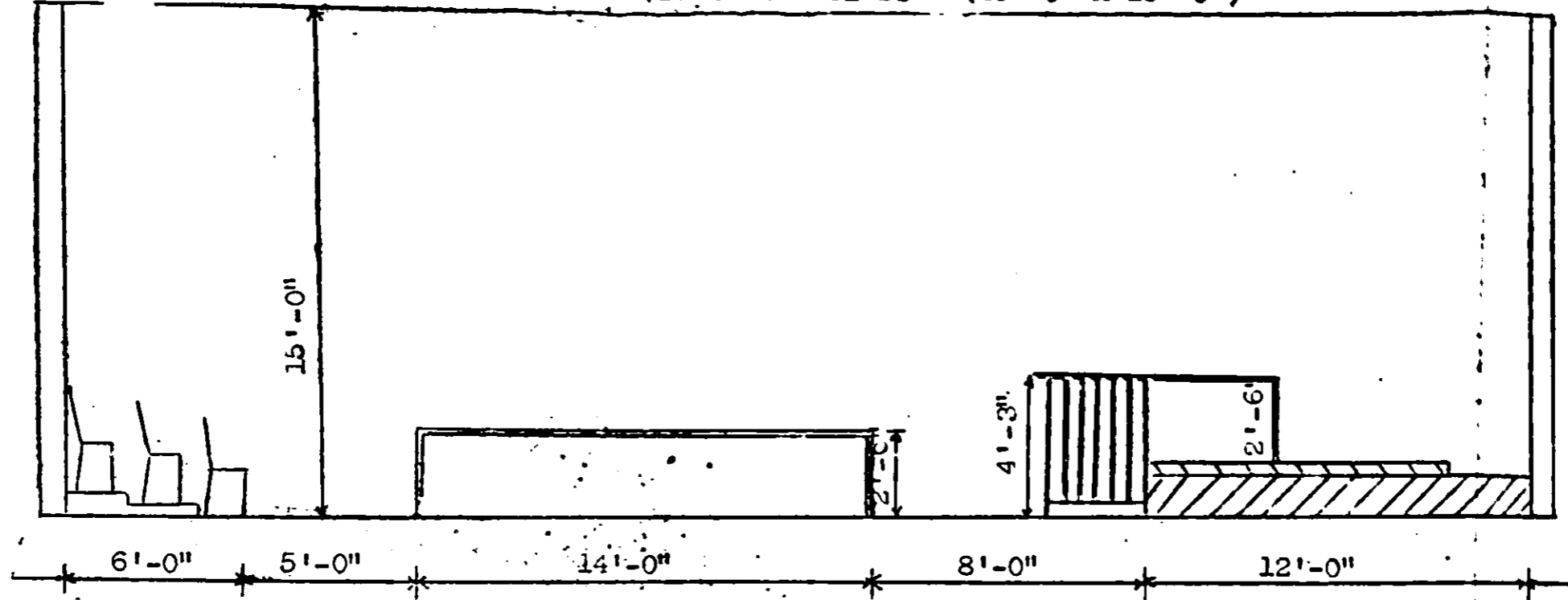
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STATEMENT OF SPACE ANALYSIS OF COURT BUILDINGS

STATE	BIHAR		WEST BENGAL		ORRISA				KERALA		MADRAS							
PLACE	CHAPRA	BHAGALPUR	HOWRAH	BEHRAMPUR	SAMBALPUR	KOTTAYAM	TRICHUR	QUILON	COIMBATORE									
Nomenclature	Civil Station	Civil Court	Civil Court	Civil & Session Court	Civil & Session Court	Civil Station	Civil Station	Civil Station	Subordinate Judges Court									
Facilities	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%	Area in Sq. ft.	%
Judicial Wing	18460	25	14487	25	10000	32	8537	21	8344	21	12248	15	11177	15	8711	13	6334	12
Administrative Wing	7601	10	13080	23	3924	13	8511	21	8114	20	27951	35	24689	34	28300	42	9872	18
Lawyers Wing	374	1	1430	2	958	3	-	-	-	-	1408	2	3038	4	2010	3	2915	5
Public Amenities	227	-	360	1	188	-	914	2	188	-	5149	6	3220	5	2069	3	3110	6
Carpet Area	27162	36	29357	51	15070	48	17992	44	16458	41	45756	58	42124	58	41080	61	22261	41
Sanitary Accommodation	1274	2	1245	2	1460	5	424	1	418	1	2261	3	1272	2	1122	2	2604	5
Circulation Area	3362	44	17881	31	10140	33	15243	33	16807	42	21301	27	15907	21	16681	25	22790	42
Wall Area	13502	18	8825	16	4330	14	6253	17	6127	16	9279	12	13347	13	7308	12	6255	12
Built-up Area	75402	100	57303	100	31900	100	40512	100	33800	100	73600	100	72650	100	60700	100	52100	100
No. of Courts	19		13		11		8		8		7			6			4	

STANDARD LAYOUT PLAN FOR A CRIMINAL COURT - CLASS (50'-0" x 25'-0")

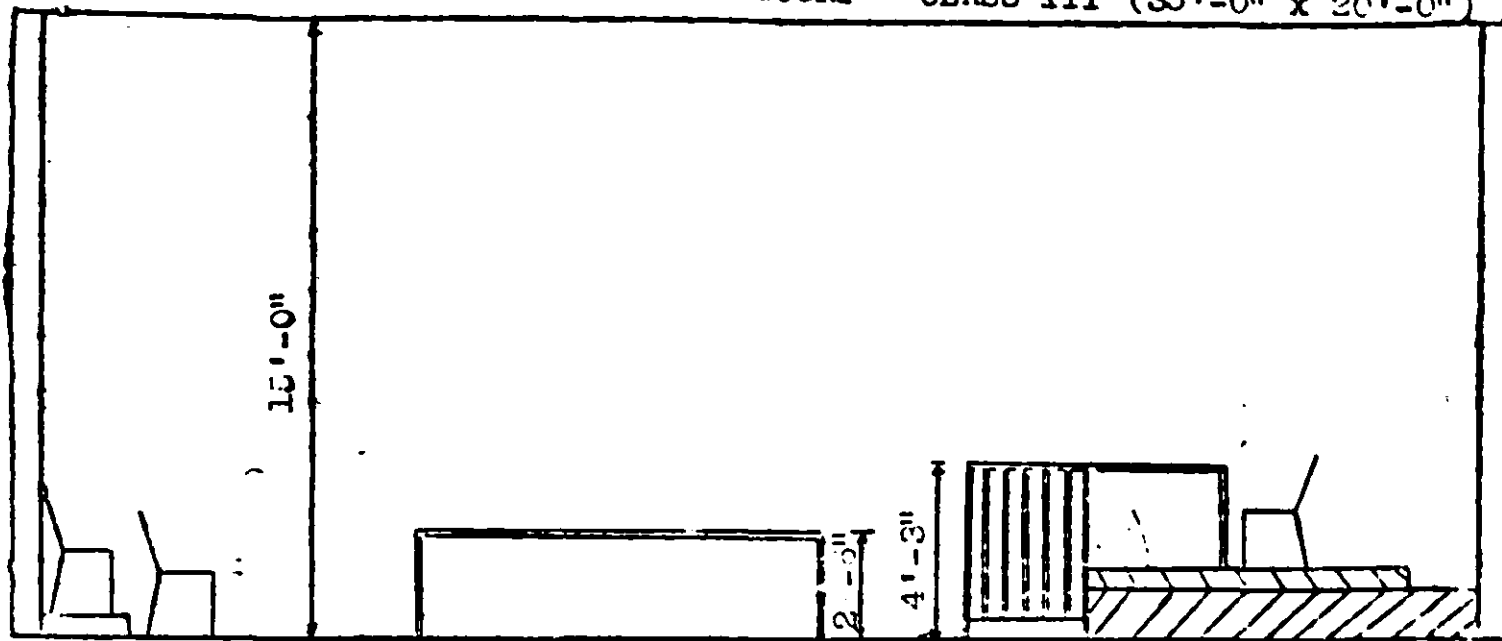
11.11.11



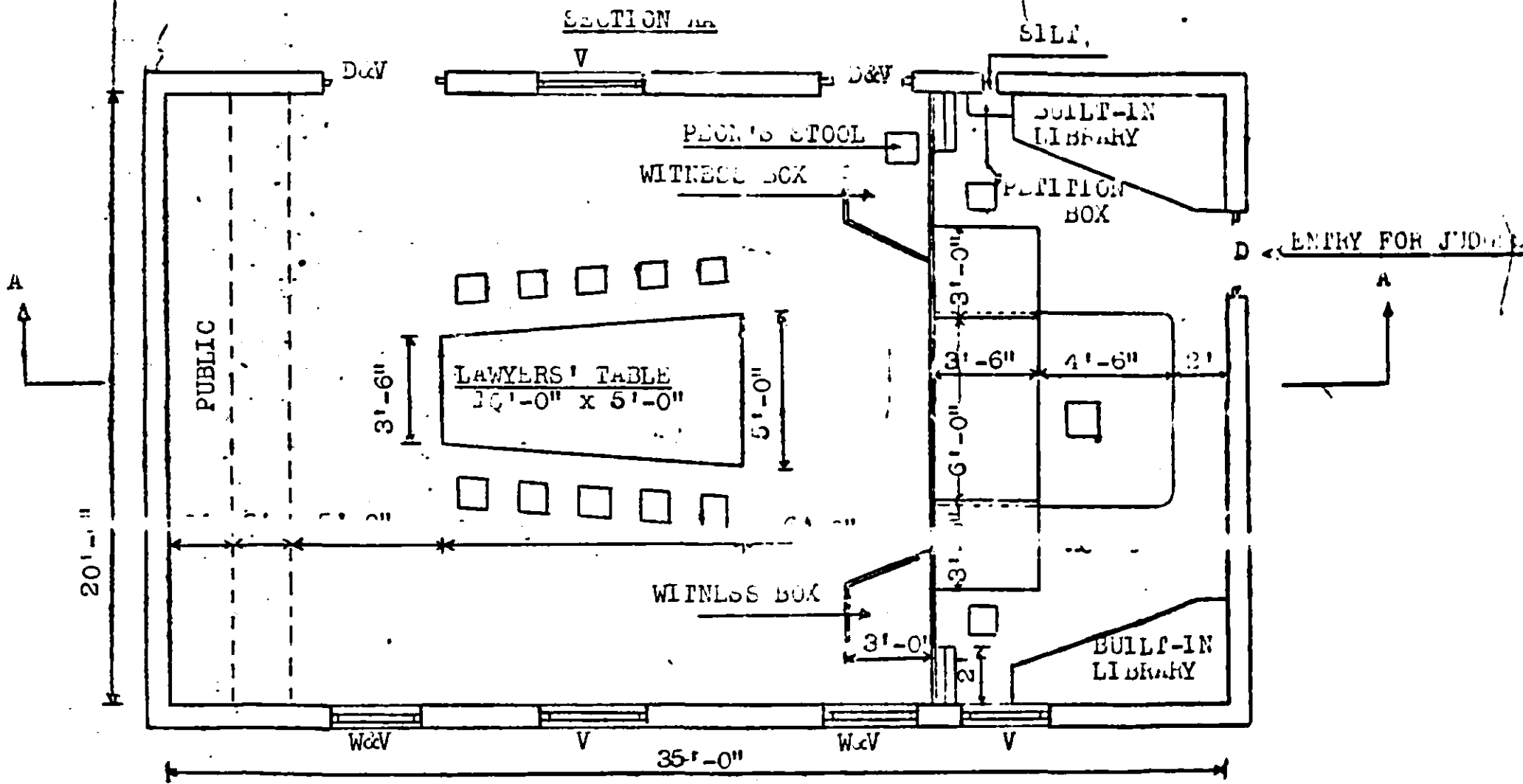
PLAN

SUGGESTED LAYOUT PLAN FOR A CIVIL COURT - CLASS III (35'-0" x 20'-0")

APPENDIX II (Contd.)



4'-0" 5'-0" 10'-0" 6'-0" 10'-0"



PLAN

SUGGESTED ARRANGEMENT FOR STORAGE OF RECORDS

A record room can be fitted with racks on rollers in any one of the ways suggested in the sketch. The racks are almost similar to the popular types manufactured by M/S Godrej and other Companies except that they are mounted on wheels. It may be necessary to fix guide rails in roof also to ensure stability against wobbling and tilting.

Alternative I. The racks are arranged on rails leaving a clearance of only 2" to 3" in between the racks. A longitudinal gangway 3' to 3'-6" wide is provided along the side of the long wall. If access is desired to any one of the racks, the racks on either side can be pushed aside creating a gangway about 3'-0" wide. Thus there will be only one transverse aisle at a time.

The number of racks in one block can be 12 to 15. When the number of racks required is more, the number of blocks can be increased. For a very large number, the arrangement indicated under Alternative II may be adopted.

The space utilisation in such an arrangement is as much as 63 to 68% against 30% to 50% obtaining in most of the courts at present.

There is another advantage in this system

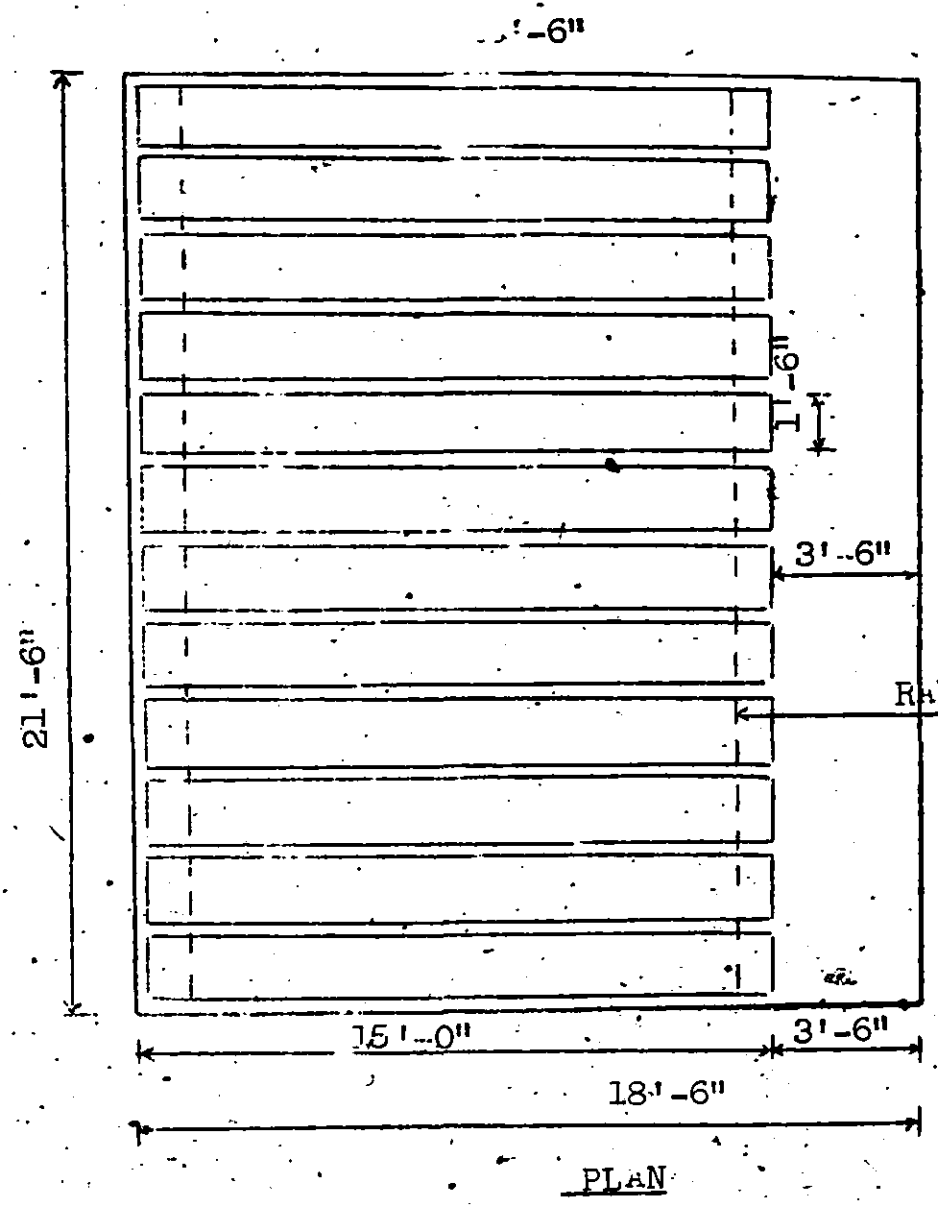
Appendix III (Contd.)

especially if it becomes necessary to place the racks in the upper floors of a multi-storey building; since the position of rails is fixed, the points of application of load are pre-determined. It will be, therefore, possible to provide suitable beams beneath the rails to withstand the concentrated load and design the slab in between only for a nominal load of 50 to 60 lbs. per sft. The relative economy between designing the floor in this way and designing the entire floor slab for a distributed load of 200 to 300 lbs/sft. is obvious.

Alternative III. Yet another alternative is suggested. Here instead of creating an aisle in between the racks to provide access, the racks are drawn into the aisle and handled. The space utilisation in this case is as high as 60%. However this arrangement does not lend to beam-slab design since the load is distributed all over. Nevertheless handling in this case will be very easy.

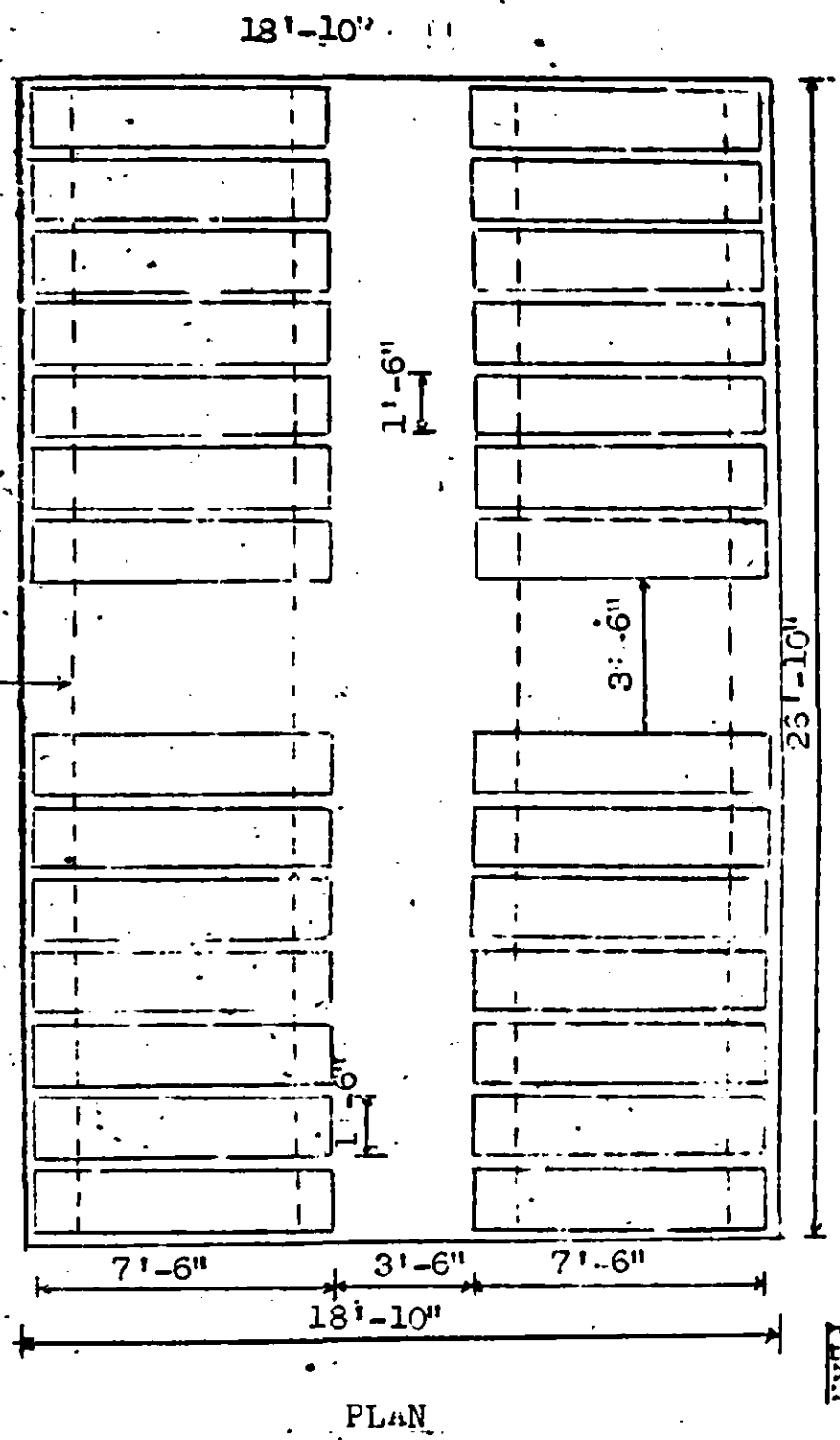
/K.N. BHASIN/

ALTERNATIVE I



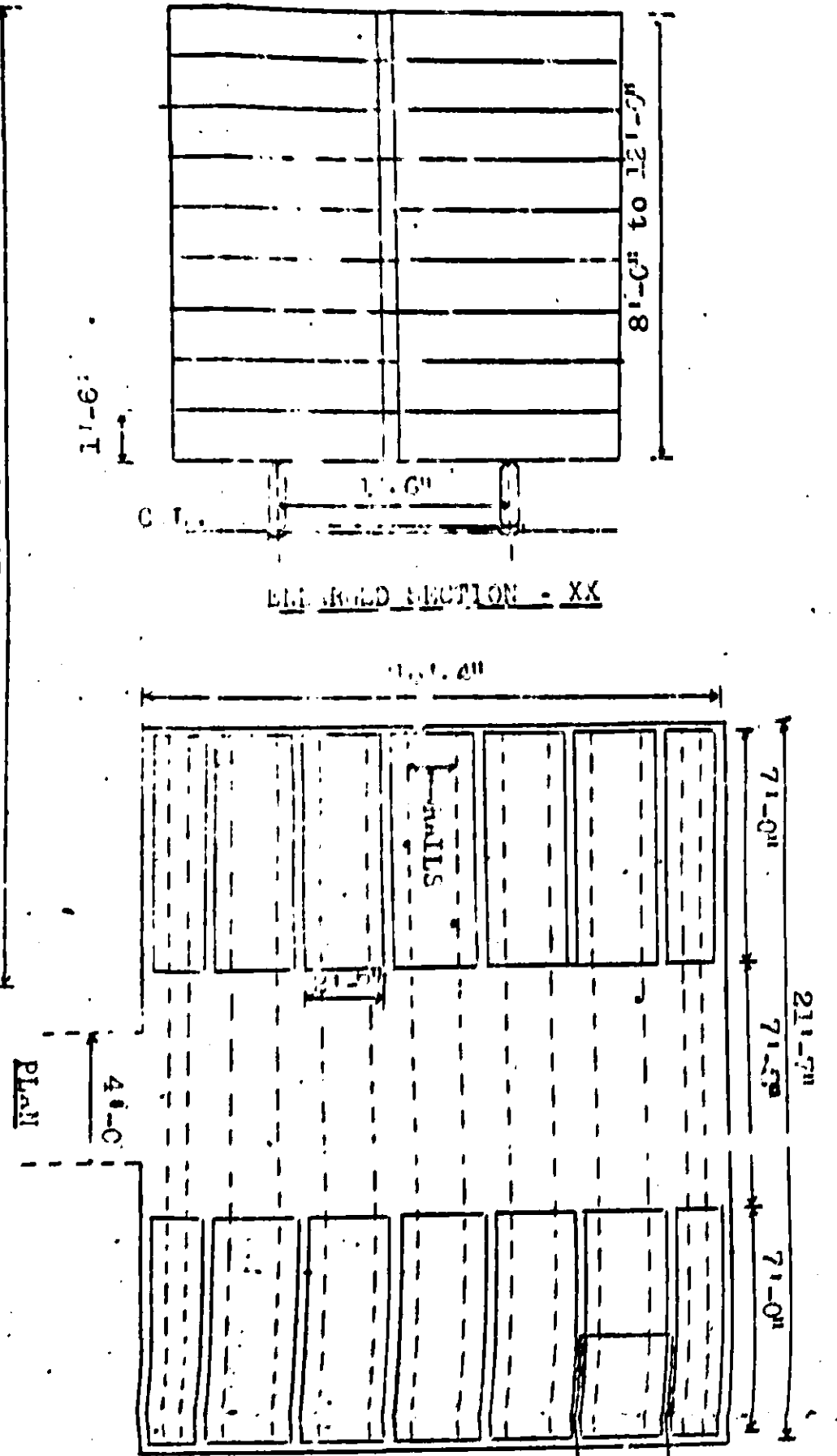
AREA OF ROOM ... 398 SQ. FT.
 AREA OF RACKS .. 270 SQ. FT.
 EFFICIENCY .. 68%

ALTERNATIVE II



AREA OF ROOM ... 505 SQ. FT.
 AREA OF RACKS ... 310 SQ. FT.
 EFFICIENCY 63%

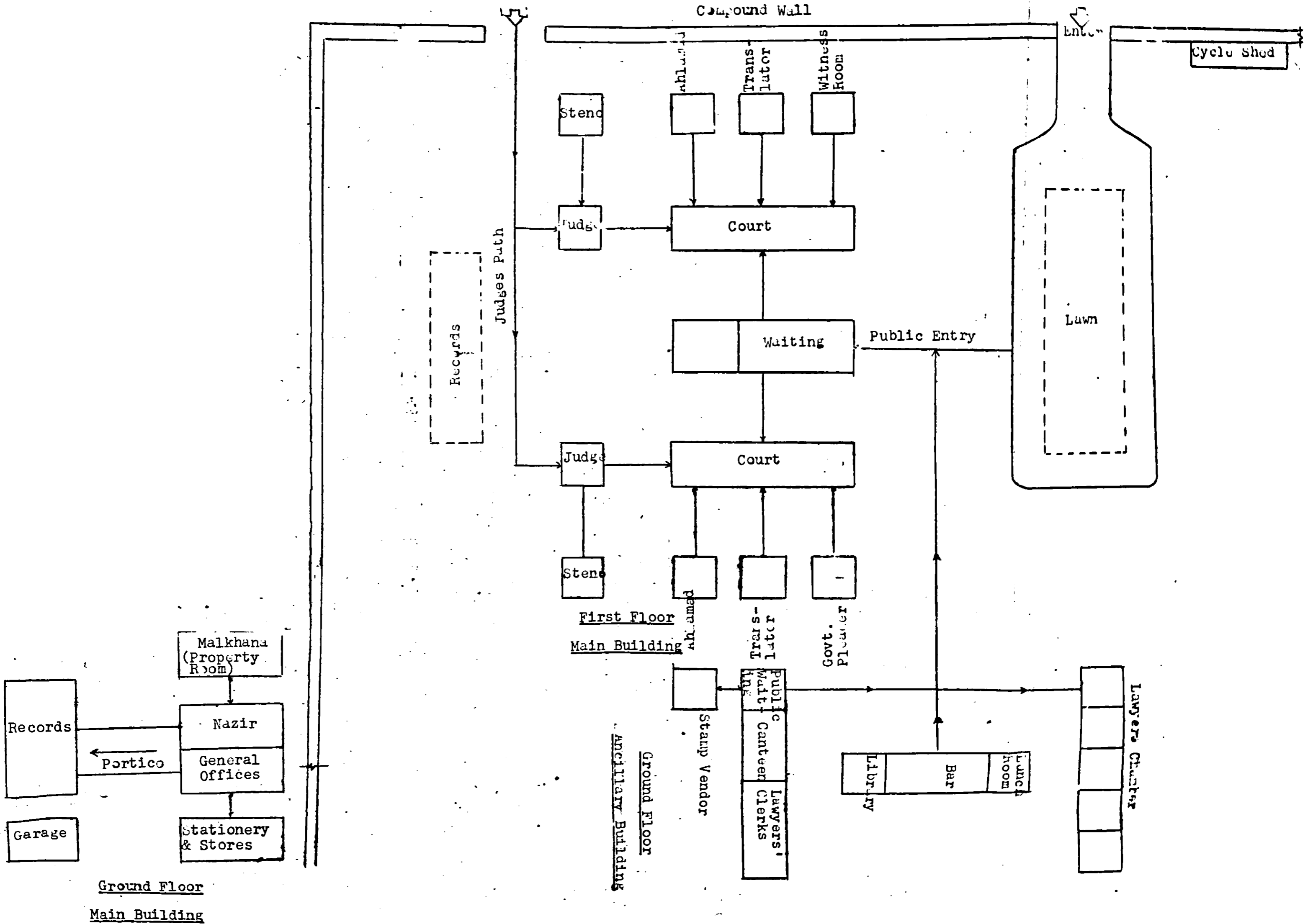
ALTERNATIVE III



AREA OF ROOM ... 343 SQ. FT.
 AREA OF RACKS .. 210 SQ. FT.
 EFFICIENCY ... 60%

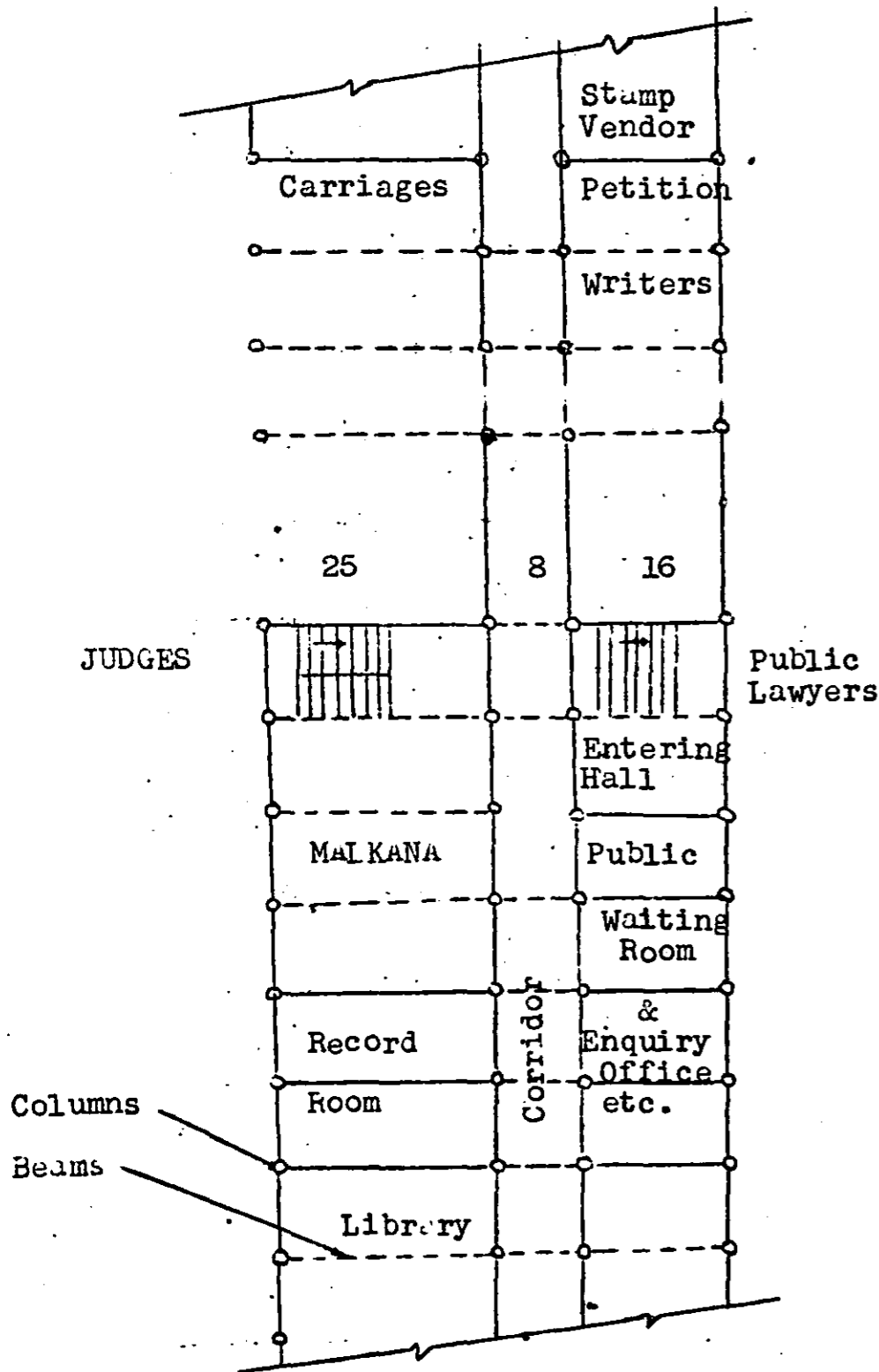
FLOW CHART

Appendix IV.

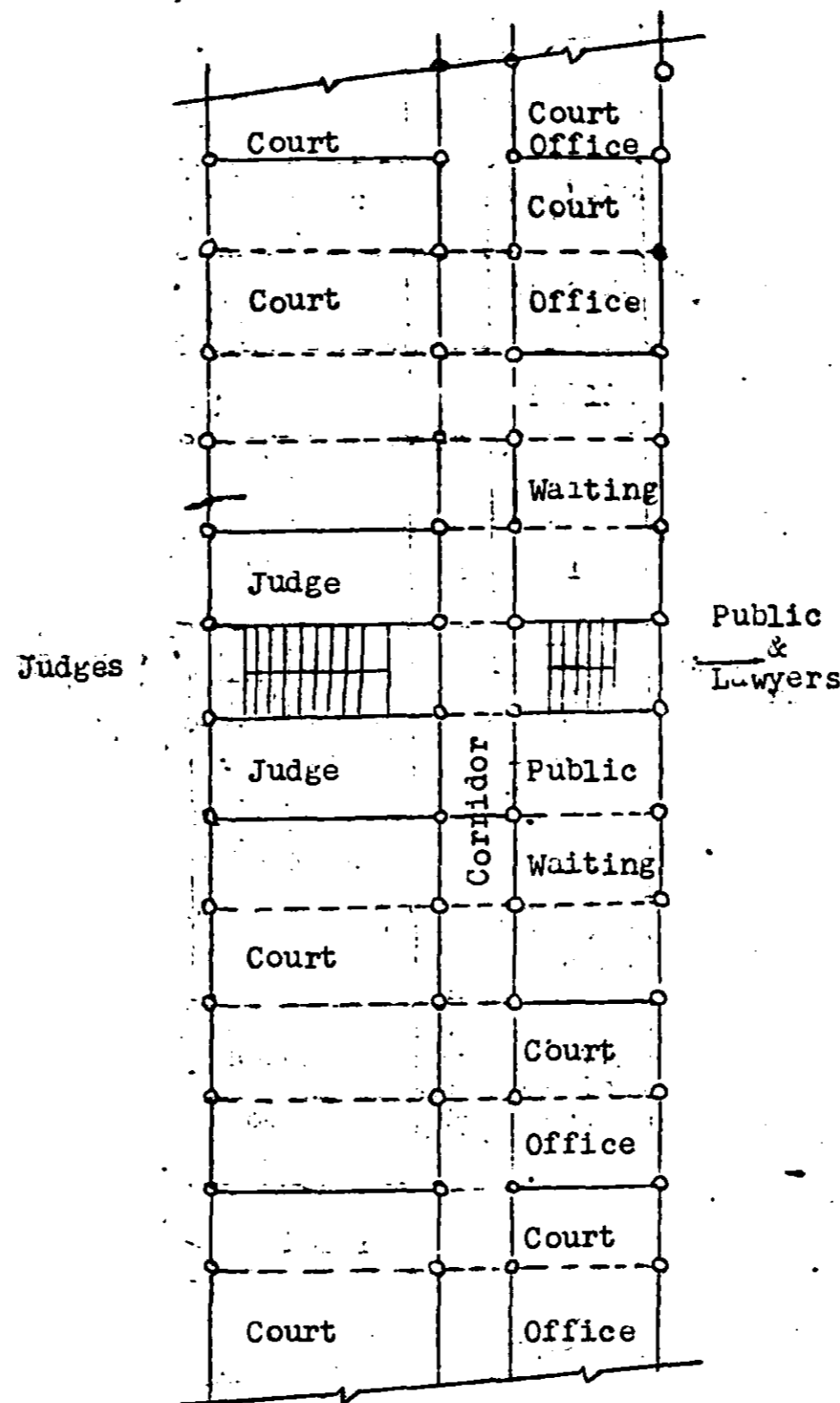


Ground Floor
Main Building

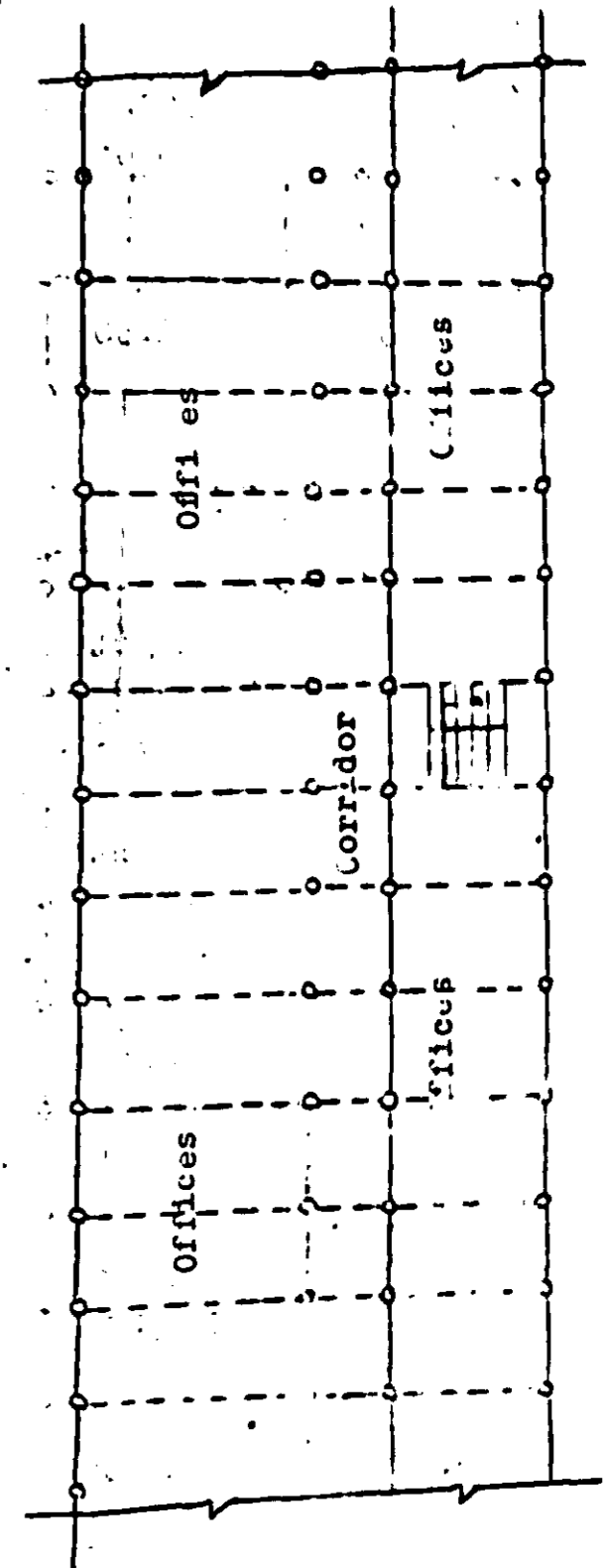
SUGGESTED STRUCTURAL PATTERN OF A MULTISTOREYED COURT BUILDING



Ground Floor Plan



1st & 2nd Floor Plan



3rd Floor Plan (Offices)