

A SHIRE FOR MIDDLESEX COUNTY,
MASSACHUSETTS



A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master in Architecture

Massachusetts Institute of Technology

May 19, 1958

William Lawrence Garvin

(Handwritten marks: a circle and a vertical line)

(Handwritten mark: a checkmark)

Lawrence B. Anderson
Head of Department



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MASSACHUSETTS

William Lawrence Garvin

Submitted for the degree of Master in Architecture, Massachusetts Institute of Technology, May 19, 1958.

The existing county building group has outgrown its site and outlasted its surrounding environment. The bulky structures inclosing symmetrical arrangements of unchangeable spaces have enforced hardships upon the county's changing services and administration.

The inappropriateness and inadequacy of the existing buildings, due to mutations of the county government, provide the situation which, in part, prompts this thesis. Another challenge is to design a group of public buildings which are distinctly recognizable as such and also satisfy the knowledgeable criterion of contemporary architecture.

The selected East Cambridge site is bounded by the Lechmere Canal and the Charles River Lower Basin. The canal would be filled in and partially planted. The siting of the buildings would seek to take maximum advantage of the Lower Basin's proximity.

Research and design studies have resulted in the development of two buildings. One is a three-story court building housing a number of courts of varied size and appointments together with necessary auxiliary spaces. A second six-story building houses the county's administrative and record keeping agencies. The latter building is of general office character for flexibility and incorporates special structural considerations for adequate records storage.

65 Frost Street
Cambridge 38, Massachusetts
May 19, 1958

Pietro Belluschi, Dean
School of Architecture and Planning
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge 39, Massachusetts

Dear Dean Belluschi:

In partial fulfillment of the requirements for the degree of Master in Architecture, I herewith submit a thesis entitled "A Shire for Middlesex County, Massachusetts."

Sincerely yours,

W. Lawrence Garvin

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PREFACE

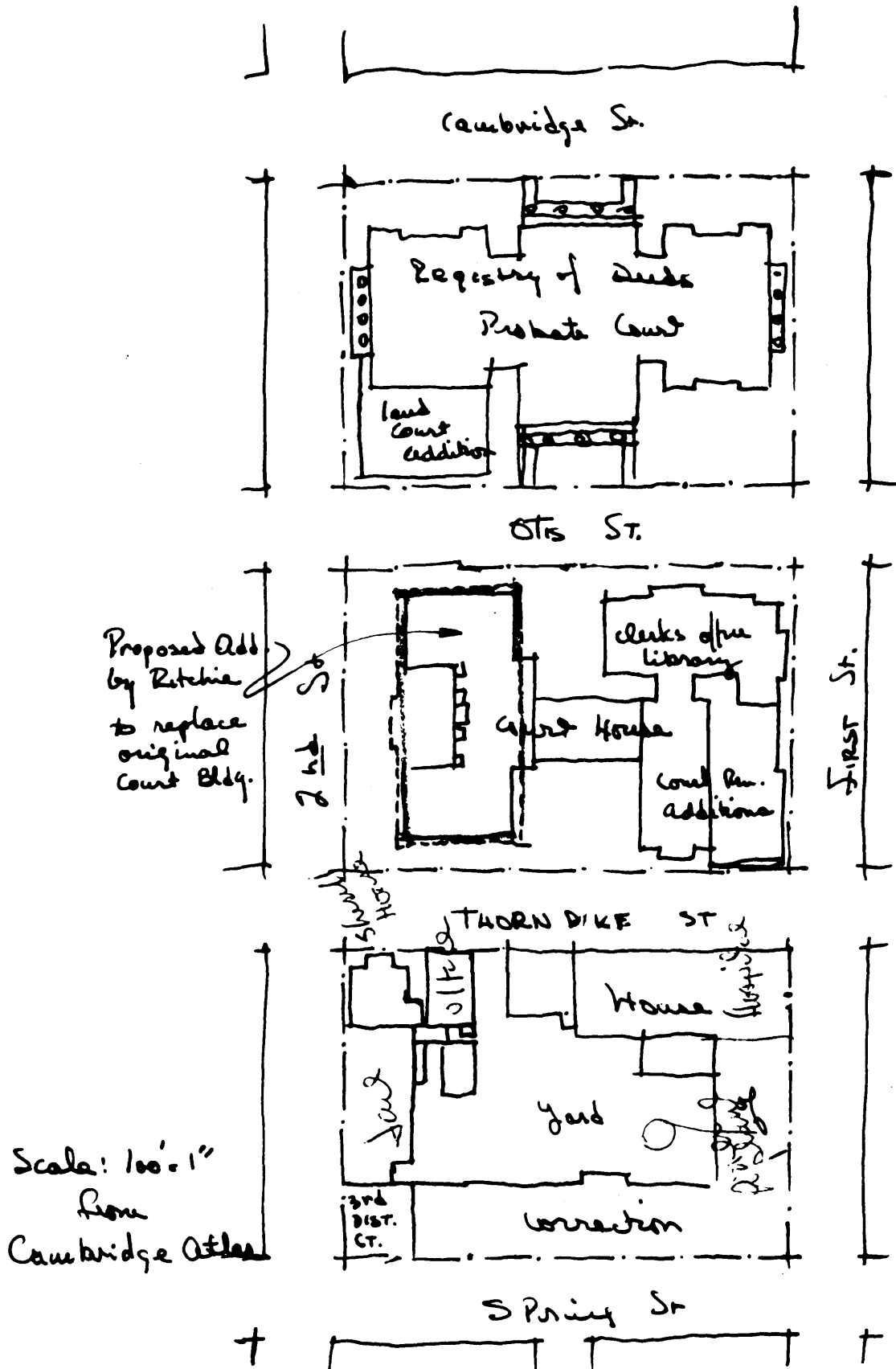
One of the ideas which Louis Kahn emphasized during his recent tenure at M.I.T. as a Visiting Professor was that frequently the architect must write his own program if it is to be accurate and thorough. What the client offers as a program often proves to be either vague or a restatement of existing conditions. Without clearly recognizing it, my own experiences have verified this situation. The criticism of a teacher in a new school building which has seemed to please the superintendent of schools and Board of Education can sometimes be startling.

The research for the design of this Shire by its nature has also been a study of how to fill the program voids left by the architect's nearly exclusive contact with executives or public officials.

My research began with the origin and development of county government. The critique which followed was read by a secretary to the County Commissioners and almost resulted in the loss of that office's cooperation. After a more careful analysis, I began to interview random employees, but these people were so deeply involved in their own role that very little comprehension emerged.

The next step was to visit the county engineer's office where, in freehand at small scale, floor plans of all the buildings involved were copied. The original (1813) Court House building plans were non-existent but even these could be roughed out coupling visual inspection with a knowledge of the building's symmetry.

Figure 1



Site Plan of Existing Shire

Armed with these plans and the approximate room sizes, I visited each room in each building to make notes on who and what each contained. The whole operation could be pieced together from the employee's viewpoint of functions. Then, with reasonable comprehension the functional requirements of a building were discussed with supervisors and staff assistants. Discussing the proposed addition plans with the chief draftsman of Architect James H. Ritchie's office substituted for some interviews. At one point, I was earnestly suspected of "casing" the county jail in which a famous prisoner was secretly being held.

Some examples of my notes and drawing follow in figures 1-7. The lists of rooms, their sizes and functions would contribute very little to this description and are omitted. Unexpectedly what emerged from this kind of examination was a picture of the many handicaps in the county administration's operation caused by inappropriate architecture. It is a picture much easier to see than to describe.

The text of this thesis makes occasional reference to the existing buildings and conditions; it is hoped that the incorporated sketch plans may also be enlightening in this regard.

So long as there remains so many independent officials, the effects of personal idiosyncrasies will never be completely resolved. Mr. Ritchie's designs disheartingly bear this out - though I have no doubt that he could stoutly defend each point in question that might be raised.

Each official is understandably chauvinistic about the contribution of his

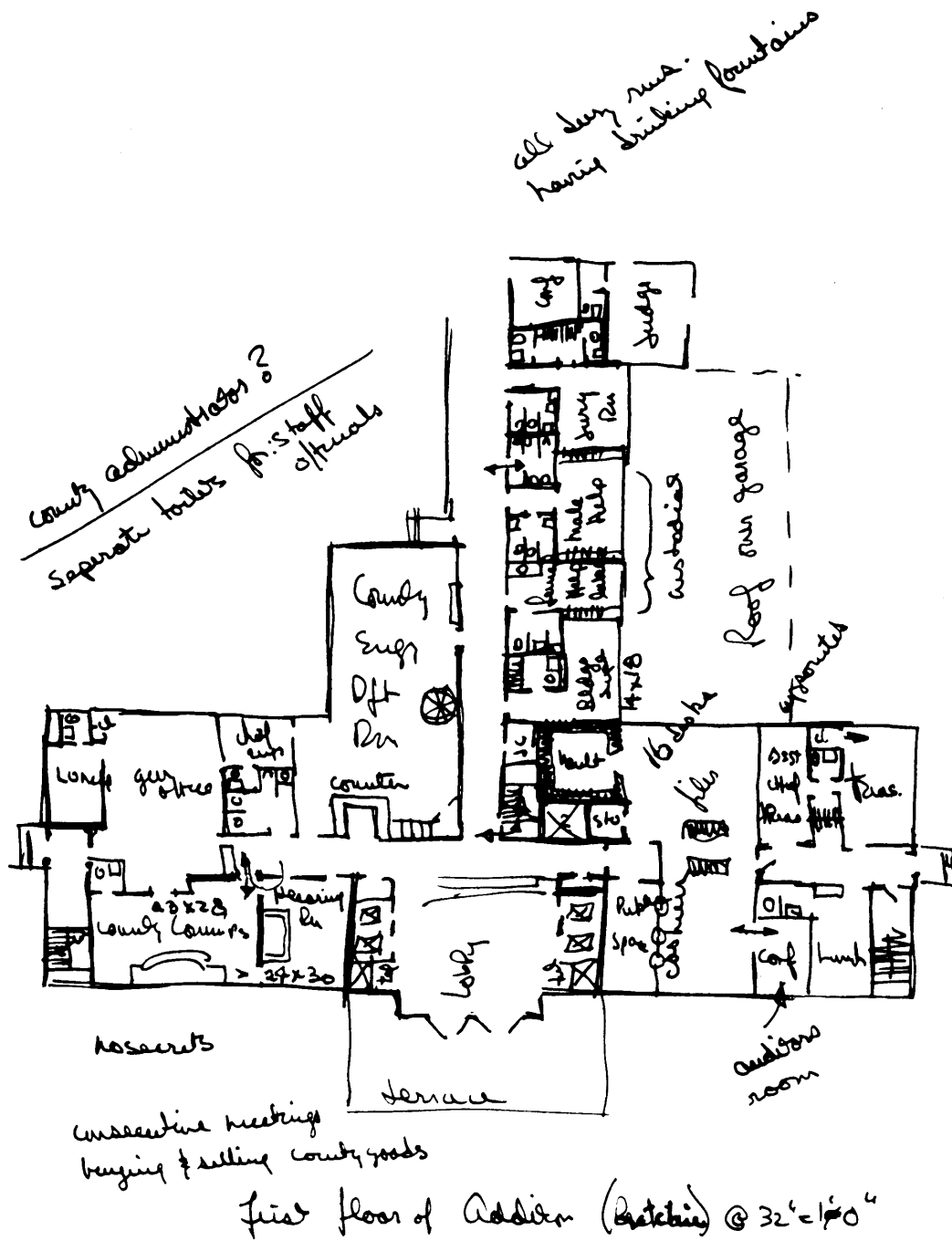
Figure 4



MIDDLESEX COUNTY COURT HOUSE
MASS.
GARDEN CITY
JAMES H. RITCHIE ARCHITECTS & ENGINEERS
BOSTON, MASS.

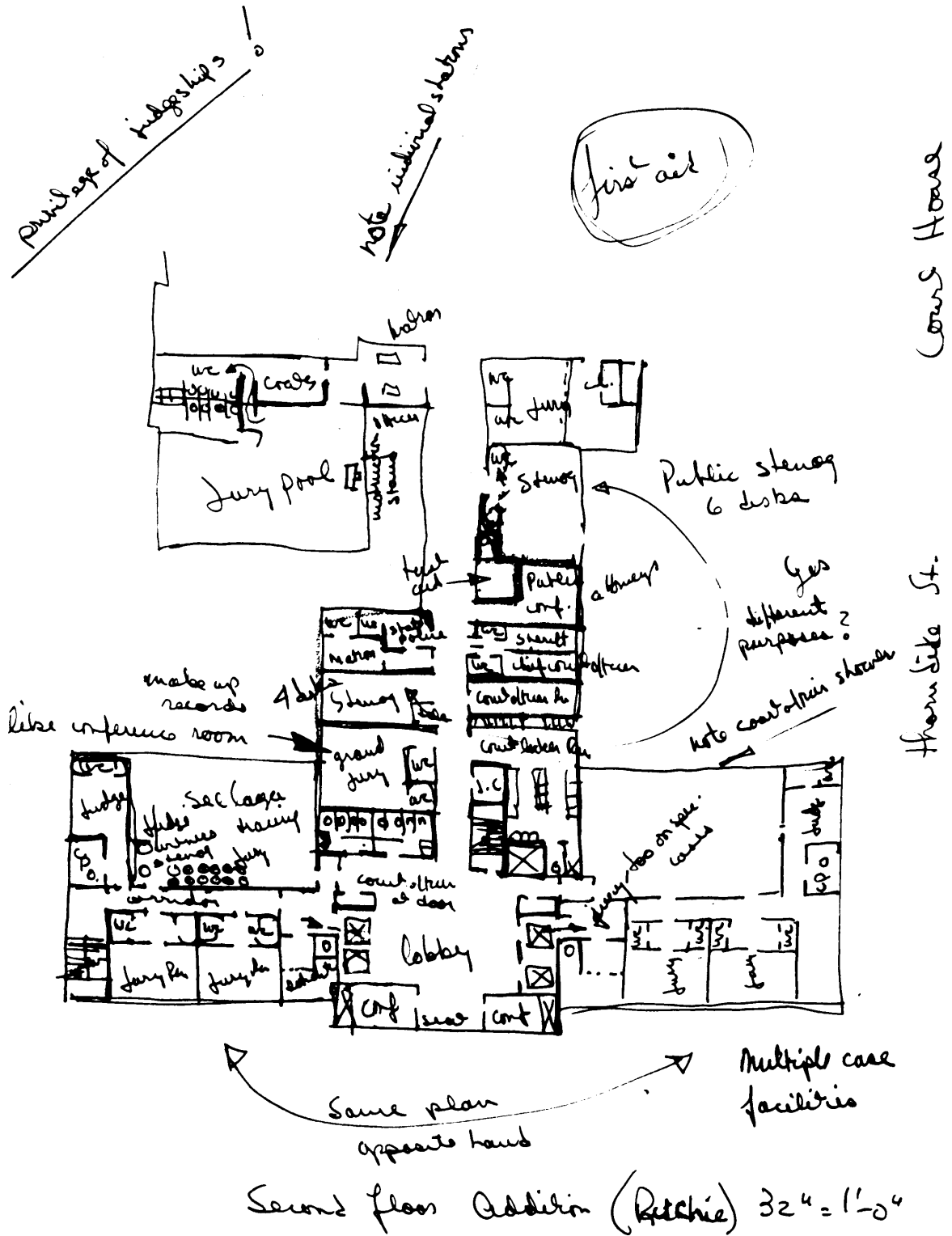
Perspective of Proposed Court House Addition, James H. Ritchie, Architect

Figure 5



First Floor Plan, Proposed Court House Addition, James H. Ritchie, Architect

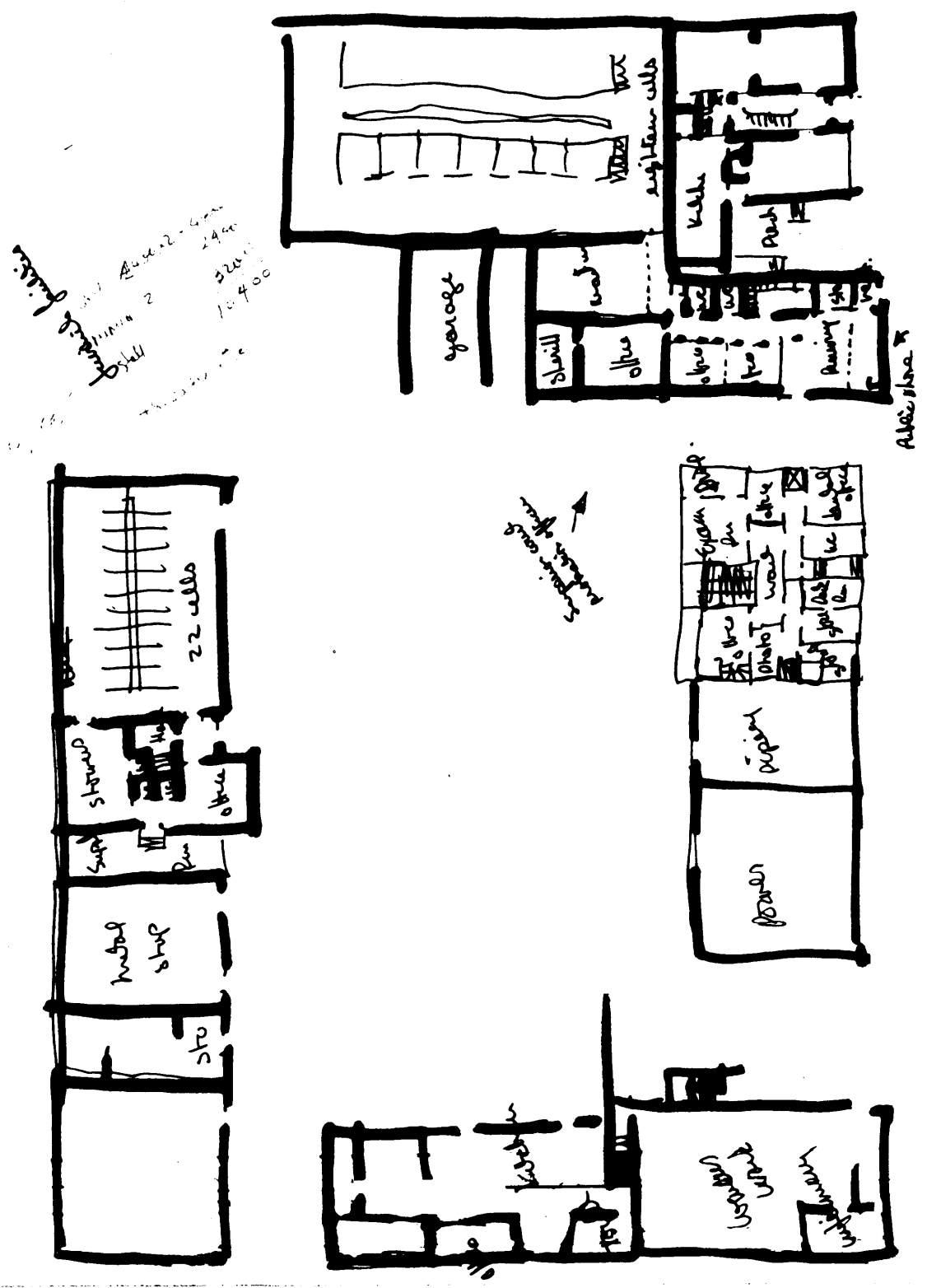
Figure 6



Second Floor Plan, Proposed Court House Addition, James H. Ritchie, Architect

department or group. Several such equally important clients would greatly complicate any design process, even with the best of intentions. Therefore, the framework of this type of research would seem to reinforce the reasonableness of any program to the end that it would facilitate a design more suitable for the county than would be the sum of the requests and suggestions of its officials.

Figure 7



First Floor Plan, House of Correction Block

Chapter I

Origin and History of Middlesex County

An undertaking in the design of municipal architecture implies an understanding of local government, particularly with regard to growth and change which ought to be reflected in the architectural conception. For this understanding, it would seem wise to trace the county's history and examine its character. It is particularly interesting that the history of Middlesex County has its beginnings in the origin of the Massachusetts Bay Colony which played an important role in the beginnings of our nation. Indeed, in searching for a beginning, one is confronted with the mythology of exploration of the Atlantic coast by Leif, the son of Eric the Dane, which precipitated a settlement at the headwaters of what has become known as the Charles River, around 990 A.D., and which is supposed to have been abandoned after three years¹. Mishawam Indians are said to have later used the same site while exploiting the fishing in the waters of a dam built by the Scandinavians. When the Puritans settled along the Charles River, some of them chose the same spot, now called Charlestown, which itself was a part of Middlesex County until annexed to Suffolk County and Boston in 1873².

The Massachusetts Bay Company provided for a Governor, Deputy Governor, and eighteen Assistants (sometimes called Magistrates) to be elected on the last Wednesday before Easter by the General Court of Freeman. Besides these officials, the Charter also provided for the offices of Treasurer, Secretary to the General Court, Major General, Admiral at Sea, and Commissioners of the United Colonies³.

In 1634, it was decided that for all the freemen to travel to Boston to participate in the General Court was dangerous for the communities in which they resided and an unnecessary hardship for the most distant freemen. So each community was given the prerogative of selecting two or three deputies to represent them by proxy in the General Court, except in the election of officers and magistrates. This is the beginning of representative government in America⁴.

The New England Colonies of Massachusetts, Connecticut, and New Haven were federated on May 19, 1643; Plymouth joined the federation later⁵. In that same year, for reasons of judicial convenience, the Massachusetts Colony was divided into the four shires of Middlesex, Essex, Suffolk, and Norfolk. At that time, there were eight towns or plantations in Middlesex County, and of these, Cambridge was designated the "shire" town⁶.

The State Constitution was ratified in 1780. An important amendment was passed in 1856 affecting county government, primarily in that the voters of the county acquired the opportunity to elect many of the officials previously appointed by the Governor with consent of the Council or by the courts; also, the short terms of some already elected officers were lengthened to increase the effectiveness of service. The county government has remained virtually unchanged since that time.

The only thing known about the first county court building is that it was situated at what is now Harvard Square, and that it burned in 1671. Two later courts were built at the same location, one in 1708 and another in 1757⁷.

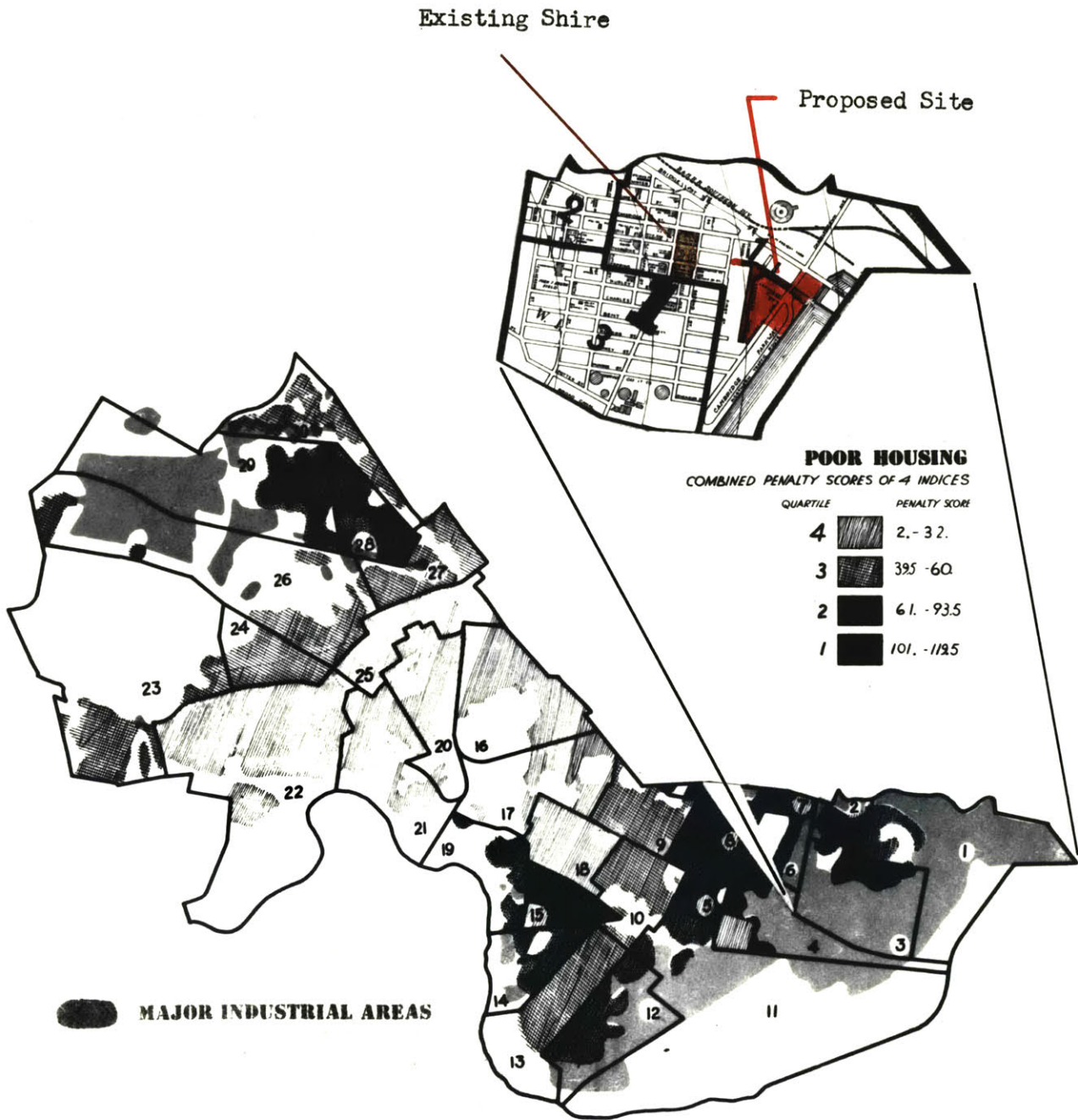
Under the Constitution of Massachusetts, the counties are responsible for

the buildings for the courts and records. In 1813, the Lechmere Point Corporation offered speculative land in East Cambridge, together with \$24,000, to Middlesex County to build a court house and jail. The offer was accepted, and East Cambridge became the shire town. The buildings were completed with an expenditure excess of \$4,191.78, which was accepted and paid by the county. An old court house was thus abandoned by the County, used by the town until April 19, 1841, and afterward removed to Palmer Street. The court house was enlarged by two wings in 1846. On March 27, 1877, the legislature authorized a debt of \$40,000 for the erection of a Registrar of Deeds building, which was later moved back from its original site and enlarged by an additional structure. For public convenience, Lowell was designated a shire town in April, 1836.

When the first of these buildings in East Cambridge was erected as a complimentary feature to the character of a speculative housing venture, it was a small element in a larger, sophisticated residential area. For a long period, both residences and court house benefited. Even today, there is a remnant of pride in this community which refuses to recognize the need for redevelopment as projected by the Cambridge Planning Board. However, it is true that the existing county buildings have outlived and outgrown their environment⁸.

The county buildings have grown in size and scope to cover six times the original donated land area. Industry from rail and waterfront has encroached on most of the surrounding land. And, industry's influences have accelerate the deterioration of the remaining ring of housing surrounding the county buildings.

Figure 8



Cambridge Poor Housing Diagram, from Social Characteristics of Cambridge Neighborhoods

Figure No. 8, prepared by the Cambridge Planning Board, graphically depicts this environment. Other maps not included indicate the population overcrowding of all age groups, the health and welfare case loads, and the poor educational nature of this community.

The existing building housing the registries of Deeds and Probate was constructed at about the turn of the century at the cost of a million dollars. Besides the three-story addition housing the Land Registry, a court and additional public space for the Deeds Registry, there have been two alterations to the existing building. The central lobby well has been decked over between ground and first floors to provide conference rooms which were constructed too small to attract use. Also, the upper level of the Probate Hall has been decked over to provide record storage space.

The mutation of spaces' uses is extensively in evidence throughout all the East Cambridge county buildings, typically in the jail and House of Correction, frequently altered and added to but currently little used. Some areas, such as the Registries of Deeds and Probate, are greatly overcrowded by the ever more rapid acquisition of public records. Other areas, such as those for copying and comparing records and for housing juries, are now either little used or abandoned altogether. In the case of each change, the buildings have resisted new uses by their bulky, symmetrical, non-functional and unchangeable nature.

The failure of the authors of the existing county architecture to admit that for the period of their occupancy the buildings would undergo many changes in function and mechanical requirements before they deteriorated structurally provides the situation which, in part, now prompts this thesis.

Another and possible even stronger motivation is that so little has been accomplished with municipal architecture in contemporary design. Many public buildings have been designed to appeal to what is thought to be public taste. Consistently, an effort seems to exist to embody the pomp, grandeur, and authority of the state in an architectural medium. Whether the reason be lack of taste or lack of funds, the familiar example of this approach fails to achieve its goal, and as frequently proves to be undistinguished by any other architectural standard.

I doubt that the public necessarily equates monolithic pompousness with good taste. After all, this quality in politicians is frequently made the butt of jokes and pranks. It would seem that distinctiveness of architecture in today's medium of materials and techniques is equally applicable to public buildings, as should be all criteria of good design. While not minimizing any of this, it is my thesis that public administration buildings ought not to be indistinguishable from commercial buildings. The product of this research and design process is, in part, an effort to discover a distinguishing character for these municipal buildings which, at the same time, satisfied the knowledgeable architectural criterion.

Footnotes

- 1 Conklin, Edwin P., Middlesex County and Its People, Lewis Historical Publishing Company, New York, New York, 1927, p. 8.
- 2 Hatch, Howard S., History of Middlesex County, Massachusetts Selectman, April, 1938, pp 2-4.
- 3 Butler, Wilson R., The Government of the New England States, Charles Scribner and Sons, New York, New York, 1906, p 18.
- 4 Conklin, Edwin P., op. cit., p 27.
- 5 Conklin, Edwin P., op. cit., p. 38.
- 6 Hatch, Howard S., op. cit., p 4.
- 7 Hatch, Howard S., op. cit., p 5.
- 8 Cambridge Planning Board, 1954 Progress - 1955-60 Proposed Program, Cambridge Capital Improvement Program, Printing Division, Purchasing Division, Cambridge, 1955, p 12.

Chapter II

Government Organization

American county governments by their nature have a consistent reputation for waste and inefficiency which cannot appropriately be applied to Massachusetts counties, because of the different nature of their organization. Two important differences which distinguish Massachusetts and some other New England counties from the general rule are, first, that they have no primary land jurisdiction since there is no unincorporated land in the state, and, secondly, that each county functions most importantly as a judicial subdivision of state government and has done so since colonial times.

These differences have encouraged the reference to Massachusetts counties as having a "scattering of minor functions" executed by "a handful of officials."¹ A Massachusetts county is officially defined as "a body politic and corporate for the following purposes: to sue and be sued, to purchase and hold land for the use of the county and personal estate lying within its boundaries, and to make necessary contracts, and do necessary acts relative to its property affairs."²

By specific acts the state legislature defines and delineates county government by defining its boundaries, individual functions, officers and fiscal affairs. The legislature, however, does not require uniform systems and practices. (Figure No. 9 illustrates the web of county organization that has resulted from this short-sighted pattern of legislation.) It sets no statutory permit for counties to alter their own systems, practices or offices. Unlike U. S. counties in other states, Massachusetts counties have no "home rule" legislation³ to regulate taxation, exercise police powers, enact ordinances

or acquire indebtedness. Counties do not actually participate in public works and have very limited welfare functions since there are no county schools, libraries (except law), or parks. Counties do not function importantly as election districts having no elected county judges, coroner, or prosecutors⁴, Middlesex County being an exception in this last regard.

These circumstances have prompted occasional efforts by county government opponents to abolish counties altogether, substituting either city or state agencies for county ones.⁵ These efforts have been steadfastly resisted by the counties themselves which, while not vigorously seeking more authority, are very reluctant to relinquish any. Other county government advocates emphasize the importance of an intermediate form between state and local government⁶.

Suggested by the first designation of courts for areas outside Boston in 1635 and perpetrated by these courts being designated as depositories of records in 1639, the county became a legal entity just fourteen years after the settlement of the Massachusetts Bay Colony. By 1700, the existing counties had most of the functions and responsibilities they have today. These functions include court proceedings, civil and criminal; the operation of detention barracks, jails, and houses of correction; probate of wills and other personal documents; recording of land transactions; and registration of land titles. To carry on the functions, the following officials are provided: Justices, Commissioners, Clerks and Officers of Courts, Sheriff and Deputies, Treasurers, and Registrars of Probate and Deeds⁷.

Initially, the judges were charged with county administrative responsibilities. They were replaced early in the nineteenth century by commissioners whose

effectiveness was and is today limited to supervision of county finances and administration of county property. The Commissioners also are quasi-judicial officials in that they function as a court for complaints from the actions of subordinate agencies in land-taking cases⁸. They also receive petitions, conduct hearings and prepare formal orders for highway and bridge land acquisition. Since counties help finance and maintain state-county-city highways, by ordering the work to be done, the Commissioners participate in the legal phases of state highway administration and thus have important voices in shaping the state road program. They also sit as a parole board and as trustees or supervisory boards for the law library, sanitorium and training school, where such exist.

As fiscal officers, the County Commissioners allow payments and review the estimates prepared by heads of departments for each subsequent year's expenditures. The prepared and reviewed estimates are submitted to the State Auditor of County Accounts, who forwards them to a joint legislative committee which finally recommends passage to the state legislature after its own executive committee has made desired corrections. When passed through the legislature as a whole, these acts become law upon being signed by the Governor. The estimates are tailored to fit the county's estimated receipts and during the year, the county borrows from commercial sources to finance its operations in anticipation of these revenues. The budget is "balanced" by carrying over to the next year the net difference between estimated and actual receipts and expenditures and by incorporating that difference in the next year's estimates⁹. They do not prepare a budget as such¹⁰ but require rigid adherence to the prepared and approved estimates as a substitute for responsible and efficient administration by the individual agencies.

The elected County Treasurer is the county's disbursing officer and paymaster, but does not have any general authority over the accounts of individual agencies. The treasurer prepares tax bills which are rendered to the cities and towns upon the basis of the latters' appraisal and then "equalized" by the County Treasurer. Thus the county collects 100 per cent of its taxes, though each city treasurer struggles to keep valuations low in order to minimize his city's share of the county's bill¹¹. This is why some critics of county government suggest that accessors be appointed by the state government.

The Comptroller of County Accounts office created in 1887 is about the only salutary force in the regulation of county finances. Appointed by the Governor, this state officer is required to conduct at least one surprise examination each year to each county treasurer's office¹².

There are eight judicial districts in the state divided generally along county lines. This "county" court is the great "trial court" of each district properly titled Superior Court. Above the superior court is the Supreme Judicial Court which is principally concerned with "point of law" cases appealed from lower courts. The justices and other officials of these courts are appointed and paid by the State¹³, as are the justices, officers and clerks of the probate and land registry courts¹⁴.

The County Clerk of Courts serves as clerical officer for Superior Court and is custodian of its records. He also serves as Clerk for the County Commissioners. Too, he is custodian of the County Seal and is a member of the Board of Examiners of Election Returns¹⁵. As with other departments, his accounts are subject to review by the Comptroller of County Accounts.

The County Sheriff is also an exclusively administrative officer of the Supreme Judicial and Superior Courts, since the duties of preservation of law and order are exclusively a function of city and town officials. The Sheriff or Deputies serve criminal processes, civil notices and they enforce court orders. Fees are collected for the processes and notices, and these are retained by the Sheriff's office. The Sheriff has the power to appoint special deputies while the Courts retain the power to remove the Sheriff or his Deputies, all of whom are paid in part by the fees they collect.

The Sheriff or his Deputies serve as jailers and masters of the House of Correction, the former being the place of pre-trial custody. Sheriffs have controlled the houses of correction since 1699, almost without interference until 1921, when the public demand for reform became a blistering attack on current practices¹⁶.

Since then, there have been gradual beneficial efforts toward good order. Progress has been made in cleanliness, diet, productive industry, education, religious instruction, physical exercise, social welfare, proper classification and segregation of prisoners. There remains a need to separate in custody the youths, innocent witnesses, and other first-custody persons unable to raise bail¹⁷. The County Training School for Boys is losing its importance due to newer remedial techniques of city and state agencies.

County Sanitoria and agricultural aid programs continue without particular criticism. The agricultural agency reflects the federal policy for distribution of aid to farmers more than it does any county policy.

The elective office of District Attorney provides another facet of county

government for description, although the attorney district does not always coincide with county boundaries in Massachusetts. This official is not charged with "seeking out"¹⁸ crime, though he does have the power to call grand juries. This power is as effective a threat as it is a function. His position provides an interesting contrast beside the appointed Federal District Attorneys and Marshals.

Middlesex shares with other counties in and out of Massachusetts many governmental problems. A general criticism is that the public does not have the facility to scrutinize administrative public officials because of the non-political nature of their offices¹⁹. Too, the fantasy of local autonomy of public institutions divided into the smallest possible units often contributes more to maladjustments, duplication and inefficiency than it does to local control²⁰.

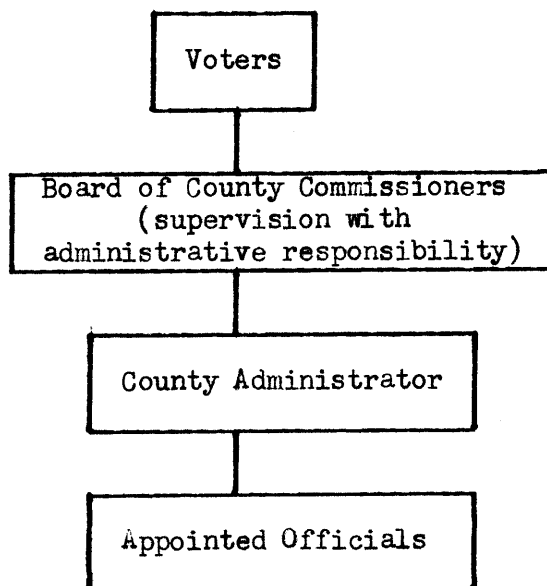
The conspicuous need in county government is for broad professional knowledge, an appreciation of regional community needs and technical skill in such matters as road building, accounting, financing, technical filing, law, and regional planning. Many argue that these qualities are more easily obtained at the state level where distance from local pressures would facilitate the power, initiative, discretion, wisdom and coordination ascribed to conduct of this larger body. It is also argued that the Sheriff, District Attorney, Clerk of Courts, Registrars of Deed and Probate, since they execute state law, ought to be directly incorporated and financed by the state governmental system²¹. A consolidation of such public institutions as hospitals, prisons, training schools and highway jurisdiction might thus be affected²², and, in truth, already has been to some degree.

The Commissioners have traditionally been able and dedicated public servants. The agencies under their control have thus been generally without much public criticism. But the question remains as to the desirable relationships among town, county and state governments in regard to organization, proportionate costs, selection of personnel, and accommodations provided to both employed and the general public. Among these agencies there are organizational weaknesses, cumbersome controls, duplication of effort and selective voids. Some of the voids are accentuated by the peculiarities of Massachusetts County Governments. Notable are the voids in regional planning and public welfare.

Some improvements can be made without transforming the county system. The currently vitiated fiscal authority of the County Commissioners would be strengthened and the County Treasurer provided with auditing authority over independent officials. A central court purchasing agency, under the County Commissioners, could be initiated. Also, the gaps in the state-wide salary schedule could be closed by further reducing the fee system for remuneration of county officials. The contributory pension systems could be strengthened by removing employment from the individual official whose informal recruitment offers some hazards to stable employment²³.

The fact that Middlesex is, in population, the eleventh largest county in the nation makes more remote the possibility of reducing the number of elected independent officials and strengthening the position of the County Commissioners by providing that the positions thus removed from the ballot be filled by appointments of the County Commissioners. In any event, the step-by-step progress in the development of more effective county government is in large measure dependent on the existing state controls and the public rec-

ognition of need after honest differences have been resolved. The elimination of elected administrative officials is a general recommended county reform²⁴, and if executed in Middlesex County, would make some sort of County Administrator essential. Quite possibly, the administrator would function as the executive secretary to the County Commissioners, thus avoiding some of the hazards of elective office. The County might then become, as Berlack suggests, the unit of cooperation between towns and the state in matters of public health, public utilities, public welfare, transit, parks, and education. Once this separation was realized and the agencies more appropriately operated by the state or city, so disposed, the county government organization might conform to the following chart, which sharply contrasts with previous ones.



Many believe that the most pressing problems facing the state cannot be dealt with because the partisan interests of local groups are so steadfastly protected by city governments and by their chauvinistic representatives in the state legislature²⁵. A recent meeting of 41 mayors of the cities and towns in the Boston Metropolitan area which produced no tangible improvement in cooperation is another example of how difficult it is to serve any "greater good."²⁶

So it would seem that the greatest potential of county government is regional planning. Regional planning for finance, public transportation, urban redevelopment and highway construction, not the least of these, Counties, if endowed with sufficient authority, might succeed where city and state have failed, because of the smaller number of individuals involved, if for no other reason. There is considerable evidence to the fact that most state agencies with sufficient authority to cope with these problems are hamstrung by their own numerical magnitude²⁷.

It is a peculiar truth that the colony's founding fathers understood this aspect of government when they designated the area to be incorporated by Suffolk County. They believed they were including all that would eventually become metropolitan Boston. The monumental wisdom of their intent is surpassed only by their monumental underestimation of Boston's future - or, for that matter - America's future!

Footnotes

- 1 Atkins, Ralph A., Massachusetts Counties under a Microscope, National Municipal Review, Vol. 28, March, 1939, pp 219-20.
- 2 Revised Laws of Massachusetts, Chapter 20, Section I, 1902.
- 3 Berlack, Harris, County Government in Massachusetts, Harvard Public Administration Library, 1920, p 50.
- 4 Atkins, Ralph A., op. cit., p 222.
- 5 "Governors Choice", Boston Herald, November 23, 1957, p 4.
- 6 Pelligell, Ralph D., "Shall We Abolish County Government?", Massachusetts Selectman, July, 1936, pp 9-10.
- 7 Atkins, Ralph A., op. cit., p 219.
- 8 Berlack, Harris, op. cit., p. 7.
- 9 Mariner, Elwyn E., This is Your Massachusetts Government, The Lexington Press, Inc., 1956, p 115.
- 10 Berlack, Harris, op. cit., p 29.
- 11 Ibid., p. 30.
- 12 Ibid., p 28.
- 13 Ibid., p 16.
- 14 Ibid., p 12.
- 15 Ibid., pp 8-9.
- 16 Atkins, Ralph A., op. cit., p 225.

- 17 Berlack, Harris, op. cit., p 22-23.
- 18 Ibid., p 18.
- 19 Ibid., p 33.
- 20 Ibid., p 27.
- 21 Ibid., p 20.
- 22 Ibid., p 47.
- 23 Atkins, Ralph A., op. cit., p 223.
- 24 Brookings Institute, Institute of Government Research, Studies in Administration No. 41, Chapter 37, Study of Montgomery County, Maryland.
- 25 Cunningham, Bill, "Hynes Commends Series," Boston Sunday Herald, November 24, 1957, p 1.
- 26 "Called Conference of 41 Mayors," Boston Traveler, April 6, 1957, p 1.
- 27 "At Last a Transit Plan," Boston Herald, January 7, 1958, p 1.

Chapter III

The Site

Selecting a desirable site for the Middlesex buildings requires an awareness of the concentrations of the county's population and the trends in movement, growth, or decline of this population. Too, a selection ought to assume conclusions with regard to anticipated changes in the functions and administration of county government. The future roles of the twelve district courts, the four county judicial geographic subdivisions, and the records center at Lowell should be suggested. The present and proposed road and rail transportation facilities will have a strong effect on the site selection.

A critical question concerns the availability of sufficient area of land in any desirable location. If a county government is to best serve the largest portion of its population, it would preferably be conveniently located for the most densely populated areas. While in terms of acquiring land, it would be a great deal more convenient to locate the seat of county government in a sparsely populated or currently redeveloped area of low real estate value.

As indicated by the state population census studies, Fig. 10, there are three centers of population in Middlesex County. The population massed around Cambridge has a history that antedates the county and is by far the largest. A feature of this concentration of population is that it comprises a fraction of the larger Boston metropolitan area containing all or parts of four counties and thus reducing the importance of each county's government in this area. The part of this area nearest the county line has ceased to grow in population and begins now to give evidence of the general suburban migration.



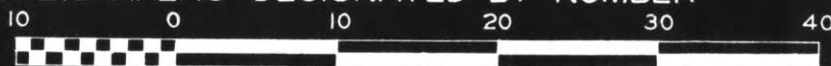
TOTAL POPULATION 1955 4,837,645

Revised to show Middlesex County population in relation to the State's.

POPULATION DISTRIBUTION IN MASSACHUSETTS — 1955

EACH DOT REPRESENTS 100 PEOPLE
DOTS WITHIN SOLID AREAS DESIGNATED BY NUMBER

SCALE IN MILES



SOURCE: 1955 STATE CENSUS

MARCH 1956



Massachusetts
Department of
Commerce

Form 100. 500-4-56-917195

Figure 10

Another area whose growth is the result of the early industrial prosperity of New England is that of which Lowell is the "shire" town, containing a Registry of Deeds as well as a District Court. The third population center is in the southwest corner of the county and contained by the towns of Natick and Framingham. This is the youngest, least populated and most rapidly growing area of the three. Of these areas, none is located near the geographic center of the county.

The reason for having twelve district courts and two "shire" towns in the county is the same as the reason for establishing a county government of any kind; that is, for convenience in transportation and communication by the constituents. The rapidly shrinking distance/time scale for rural mileage prompts a reexamination of location and relationships of the various county elements of justice and administration.

Drinking and driving charges consume most of the lower court's time and the state is currently devising ways to administer them by speedier, cheaper and less formal procedures. When this has been accomplished, as it surely will be, the widely scattered district courts will be free to accept a greater portion of the judicial load and thus ease some of the pressure on the Superior Courts.¹ The court house trend, then, is toward consolidation. Recognizing the trend requires a choice in anticipation of a county center for each of the three population concentrations, or one northern center at Lowell and another serving the two southern population areas, or one county headquarters serving all three centers. Yet, if there are fewer than three centers, there will be appreciable inconvenience to the people of the area or areas not containing one of these governmental headquarters.

Figure 11

Topographical Map of Charles River Lower Basin and Surrounding Areas in Cambridge, Charlestown, and Boston



- Existing Shire
- Proposed Site
- West End Redevelopment Project
- Projected State-Federal Government Center

Besides its own employees, the most frequent visitors to county buildings are the members of the legal profession with business in the courts or the Registers of Deeds or Probate. It is they even more than the general public that the transportation facilities must serve adequately. At the present time, the offices of this group are located to serve the Boston metropolitan area and are situated near the downtown Boston area. Therefore, adequate auto and rail facilities must link the county government with the city of Boston as well as the two other population centers of the county. An airport should be considered as an increasingly important adjunct to other means of transportation, particularly for helicopter services.

The only site comment made by the Cambridge Planning Board was to remind me the law now specifies that the county seat shall be in East Cambridge.

Weighing all the aspects recited above and yet other factors (such as a Lexington Planning official's reluctance even to speculate academically on locating the Shire in that city because of its "undesirable" character), it seems appropriate to search in or near Cambridge for a location that would reasonably satisfy a larger portion of desirable features.

Whatever the other reasons for changing the location of the Shire in order to make possible its continuous operation, the present county governmental headquarters would necessarily be discarded after the occupation of the proposed quarters.

The area of the existing Lechmere Canal seems peculiarly suited. Its selection would risk the dislocation of a few tax-producing enterprises such as the Boston Sand and Gravel's barge traffic and part of the National Casket

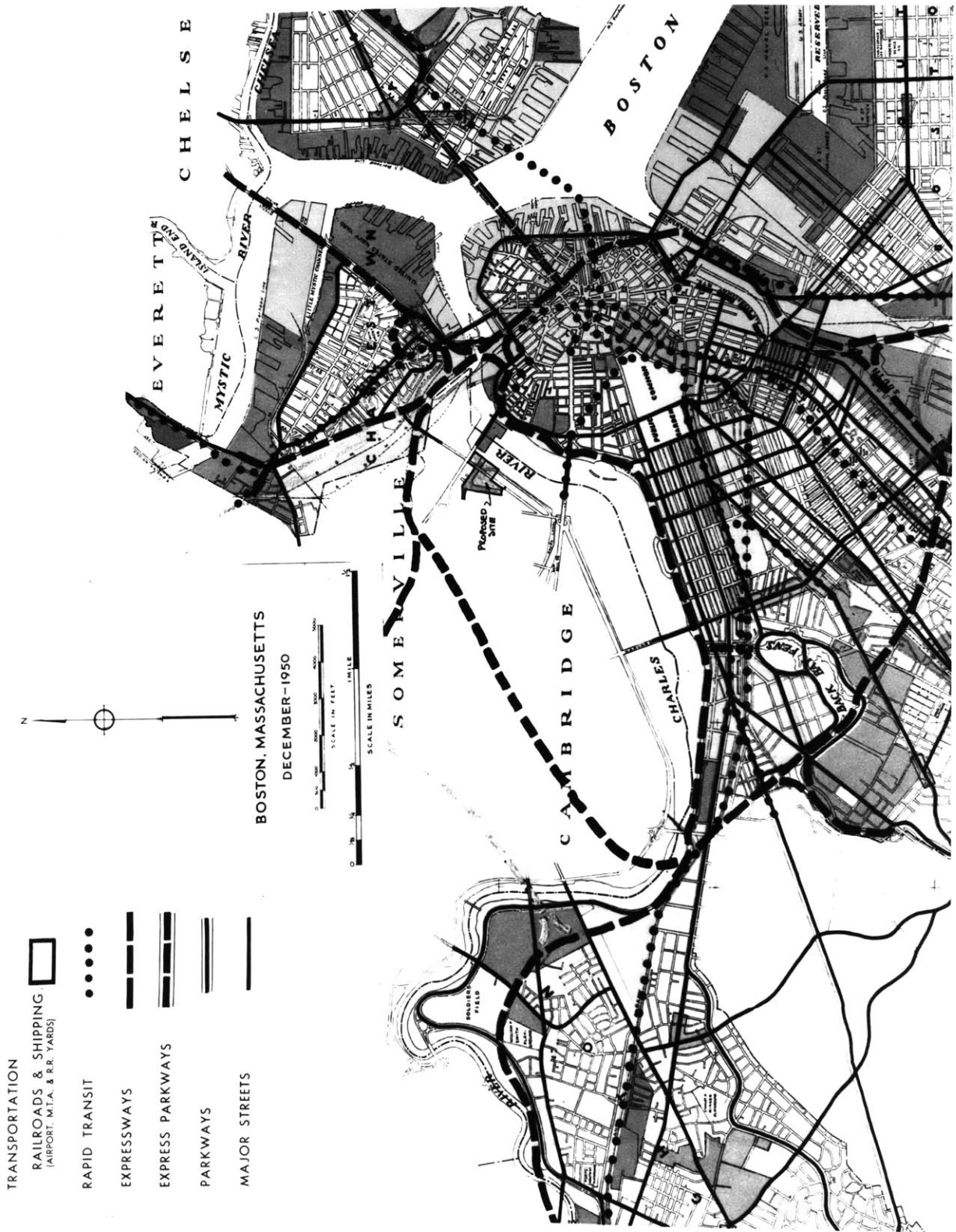
Company's lumber storage yard. A Jordan Marsh Company warehouse would have to be removed. To satisfy the scheme presented, part of Commercial Street would be closed, and the intersection of Commercial and Cambridge Streets approaching the Prison Point Bridge would be altered in a way that would improve traffic flow.

Satisfying Cambridge law does not seem a formidable problem. However, it can be pointed out that the removal of the Shire from its existing location would further facilitate the industrial redevelopment projected by the Planning Board. In this way, the revenue lost in the acquisition of the proposed site might be more than made up by the redevelopment of the existing one - a point that would undoubtedly occupy the minds of the members of the Cambridge City Council.

The Lechmere Square M.T.A. Station would provide good connections to all public transportation. A preliminary plan in the Metropolitan area indicates that the extension of the Central Artery and Innerbelt Parkway would improve motor access by actually reducing traffic density on Memorial Drive². Filling in the canal as projected would eliminate one drawbridge, expensive to maintain and a traffic inconvenience.

The proposed site would have adequate access by local public and private transportation. Boston, as one great traffic intersection, is the "hub" of almost all regional roads and public transportation. Thus, visitors to the Middlesex Shire from more distant points would find it less convenient the further it is removed from Boston, the value of ring Route 128 notwithstanding.

Figure 12



Part of Preliminary Plan of Land Use Map with Indications for Existing and Proposed Public Transportation and Highway Network

This site is important architecturally due to its proximity to the Charles River Lower Basin. Here there is some visual link with the existing and proposed government centers across the River, Fig. 11. In this location, the surrounding environment would be less conspicuous and in the future, less disturbing an influence. It might be hoped that the adjacent areas would be zoned so as to encourage the extension of Research Row.

Figure 13



Aerial Photograph of Proposed Shire Site

Footnotes

- 1 "States District Courts Due for Ever Greater Powers", Boston Sunday Herald, January 5, 1958, p 1.
- 2 "Cambridge Spurs Inner Belt Highway", Boston Herald, January 25, 1958, p 1.

Chapter IV

The County Court

On March 6, 1635, to diminish the burden of travel in to colony, four court places were designated at Ipswich, Salem, Boston, and Cambridge¹. These "Quarterly Sessions Courts" were to become known as the County Courts².

On the eve of the American Revolution, in October, 1774, Governor Gage called for town elections of deputies to the General Court, but dissolved the Court before it could meet. These elected deputies met in Salem and formed the Provincial Congress with John Hancock as president and with an executive committee entitled "The Committee of Safety." The Massachusetts Colony was advised by the Continental Congress on June 9, 1775 to chose a council to govern the colony until "His Majesty's Governor" consented to govern according to the charter.³ It was this Council which administered the affairs of the colony until a constitution for the state was ratified in October 1780. With thirty-six amendments, this constitution still exists in force.

Under this document the town was conceived as the chief executive unit, while the county served as the primary judicial unit of the state-wide system. There are four echelons of courts. The lowest group consists of Justices of the Peace and Trial Courts, which swear oaths and try some meager civil cases. The next level, like the first, has no jury and consists of police, city, municipal, and district courts which try misdemeanors and small civil cases. The third level consists of County Common Pleas and Superior Courts, the last of which has final criminal jurisdiction except in the question of a point of law. All try more important cases and appellate from lower courts. The highest State court is the Supreme Court, which with a chief and six

justices, sits with any four of these for a point of law or individually with a jury in any criminal case which reaches it. There is also a Massachusetts Court of Registration, which determines land titles, and a Court of Probate, which without a jury, decides the proving of wills, settling of estates, guardianship of minors and changes of name, all with right of appeal to the Superior or Supreme Court. The first Probate Court was established on March 12, 1784, with the Judge and Registrar of Probate appointed by the Governor and Council⁴.

The Superior Court hears three different classes of cases. Foremost are criminal cases. These are heard with a jury, but the defendant may waive a jury trial and let the judge alone make the decision. The Superior Court hears civil cases; in these the trial is before a jury if either party asks for a jury trial. The third class of cases are cases in equity, in which a citizen asks the court to settle a dispute or enforce a right in matters where no other course of action is open to him in the courts.⁵

The primary function of the Probate Court is the probating the authenticity and validity of wills. It has the responsibility of seeing that the terms of a will are carried out and that each estate is distributed as the will stipulates. It settles disputes over the interpretation of a will and is the official protector of those who cannot protect themselves. In addition the Probate Court has equal power with the Superior Court to grant divorces, in which no jury trial is asked.⁶

Its independence from other county agencies and officers and the "privilege of judgeship" provide the Superior Court with a strong personality. This is recognizable architecturally by the presence of such items as jury boxes and

witness chairs at both sides of present-day court rooms. The judges reason that the pressure of the docket backlog requires speedy procedures. Therefore, while one jury is out to deliberate the next case may begin. With two sets of jury facilities, the jury having reached a decision could reenter the court room and announce it without dislodging the participants of the next case. In actuality this is not done. While visiting the courts I have observed jury and principals of cases being detained in the corridors while the judge seeks to enpanel a jury for the next day's trial or to enact some other court business not involving the case currently being tried. The current docket backlog and recent efforts of the Governor to appoint more judges gives evidence that this double arrangement of court furniture is a concrete example of the judges' wishful thinking rather than their industry. Two cases are seldom initiated the same day.

An ominous symbol of the court's personality is the metal cage in each of the criminal court rooms. This is partly the result of a prisoner's throwing a stool at a judge many years ago. Prisoners enter these cages through trapdoors from the basement which is connected by a tunnel to the county jail. Seeing this system in operation finds the observer surprised by the absence of crimson reflections of the hellfire and screams of the damned from below. Under these conditions, I strongly doubt anyone's ability to preserve the mental attitude of innocence until proved guilty.

Historically, professionally, and now architecturally, the functions and procedures of the courts are the focal point. A tabulation of the court's activities provides some insight into their scope.

Superior Court Cases Tried, 1956

	<u>Jury</u>	<u>Non-Jury</u>
Contracts	35	39
Motor Torts	199	44
Other Torts	73	1
Land Takings	17	1
Others	<u>1</u>	<u>7</u>
	325	100 *

Court Trial Procedures

	<u>Jury</u>	<u>Non-Jury</u>
Total trials, all cases	263	113
Number of juries impaneled	354	-
Number of jury cases involved	482	-
Trials ending by verdict or finding	249	106
Trials ending by settlement	91	18
Trials ending in mistrial	5	0
Trials ending by disagreement	4	0
Trials ending otherwise	5	7
Cases settled after trial begins	129	18
Number of days in which court sat	635	221
Equity cases tried	-	91

As the first table suggests, the state's automobile insurance laws create the majority of the courts workload. The criminal cases are tried rather promptly and while the delay in some cases is as much as four or five years, the typical

* - Copied from the annual report of the Superior Court Clerk, 1956.

lapsed time between filing suits and civil trial is eighteen to twenty-four months. The workload is actually less than might be expected according to Middlesex County's population due to the legal provision that suits may be filed in the court having jurisdiction in the geographical area of either party in the case. Since at least one of the insurance company's offices is usually located in Boston and Suffolk Superior Court is more convenient to the to the State Street attorneys, that court experiences a disproportionately heavy case load.

Tremendous strides have been made in the last few years to shorten the time lag in all courts. The bar, court, and legislature have all worked and cooperated with unusual effectiveness toward this goal. The resulting trend is toward more informal procedures promptly expedited and based upon mutual consent. The right of appeal to the usual formal court actions is, of course, preserved. Against this effort, the recognized generosity of juries works potently. But the exigencies of timeliness favor the reform efforts. Currently court appointed masters and auditors are delegated to call hearings at any convenient time or place to arbitrate the legal differences with the hope of reaching a settlement without recourse to the slow, formal expensive jury trial.

Auditors are attorneys appointed for indefinite terms to hear an equally indefinite number of motor tort cases. Masters are attorneys familiar with equity laws appointed by the court to hear a single equity case. Though not required to do so both groups usually hear their cases in county facilities. At the present time, there are appointed to the several courts three probate judges, two criminal, one equity, and five civil judges of Superior Court, and eight or nine auditors.

The Superior Court judges are appointed by the governor and assigned to different courts as the need arises. This flexibility promises prompt and efficient action if the assignments prove to be sufficiently flexible and if the total number of judges is adequate. Current adequacy of both the judges' numbers and flexibility is being debated. To the layman, each judge seems quite firmly entrenched and unhurried.

Another proposed change is to have the more lightly loaded Probate judges also try Superior Court cases. This seems a logical step since they, too, are appointed and paid by the state.

A changing aspect so far ignored is the increasing use of visual aids in the court room. The most use is made of chalk boards and photo-murals in motor tort cases.

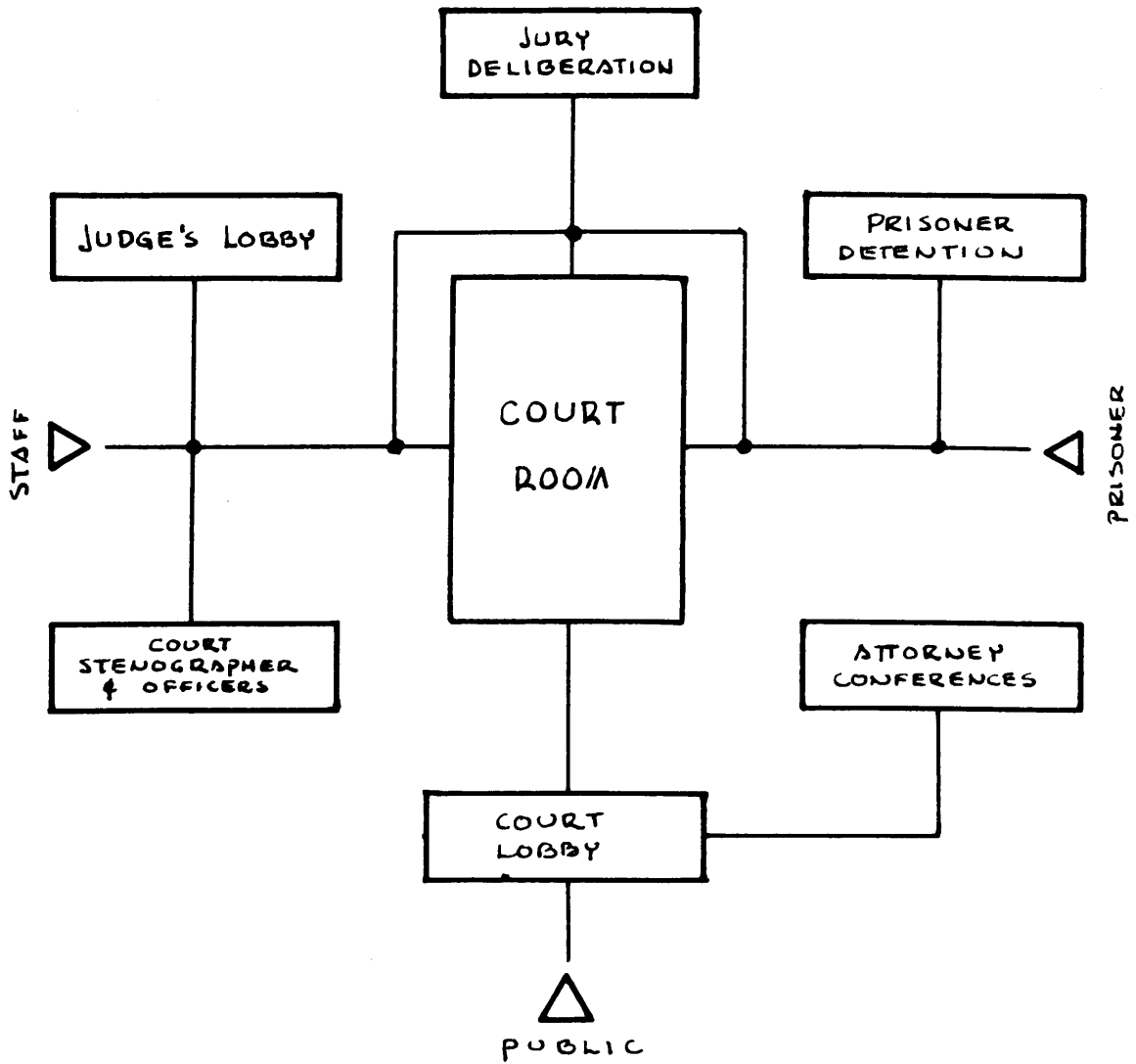
Without intending to be inclusive, these remarks demonstrate the wide range of demands to be made upon court facilities. It is reasonably concluded that the more varied and/or variable the court's physical plant, the more successful the plant will be in meeting the court's present and future needs.

The spaces basic to the function of every courtroom as illustrated by Fig. 14, are as follows:

- a. The public lobby with the purpose of controlling public access to the courtroom.
- b. The courtroom itself equipped for trial by jury or by one or three justices.
- c. The judge's lobby with toilet and closet is used by the judge for robing, retiring during recesses, and for private conferences with attorneys and others during the trial.

Figure 14

△
DIAGRAM
OF
COURT
ELEMENTS



- d. The jury room with closets, toilets, drinking fountain and possibly food warming equipment, where the jury may be closeted for extended periods of time and to which carefully restricted access is essential.
- e. An office for use by the court stenographer during trial and a place for court officers to relax nearby when court is in recess.
- f. The prisoner detention area is necessary where it is inconvenient to return the prisoner to jail during recesses. In this area, too, the attorney should be able to confer with the defendant(s). Multiple use of this space - possibly related to e, above, is desirable when civil cases are also tried in the same courtroom.
- g. Nearby rooms for pretrial and recess conferences between attorney and client are desired.

In addition to these, there are public and staff facilities provided for the court as a whole.

The most important departure from tradition made by this thesis is not to provide each courtroom with all of these basic auxiliary spaces. In the past a judge has attached himself to one courtroom necessarily equipped for all types of court situations. The various problems come to that judge's courtroom. This arrangement requires a large expenditure for little used spaces. The familiar scene is for six or nine people (judge, clerk, stenographer, two court officers, two attorneys and two clients) to occupy a large, ornate court room. The court officers doze and the proceedings continue in a manner inaudible from the rear of the room. Where there is public interest, the judges are even less enthusiastic about public and press attendance since these disturb the court's decorum and since the greatest interest is devoted to the least civilized human experience brought to the attention of the court.

Therefore, a variety of court hearing and conference rooms is proposed, anticipating the indulgence of the justices, seeking to provide the greatest number of usable spaces allowable by the project's economics, acknowledging the diversity of need and anticipating future changes in the judicial system. Of course, for the proposed court building to function, it will be necessary to prevent any one judge from establishing himself in any one space. Similarly, no exclusive assignment of spaces must be allowed between Superior and Probate cases. Adequate space in the adjacent office building will be assigned to each judge to satisfy his needs and his pride, during his tenure in the Middlesex County court. One amenity of this arrangement will be the proximity of the County Law Library.

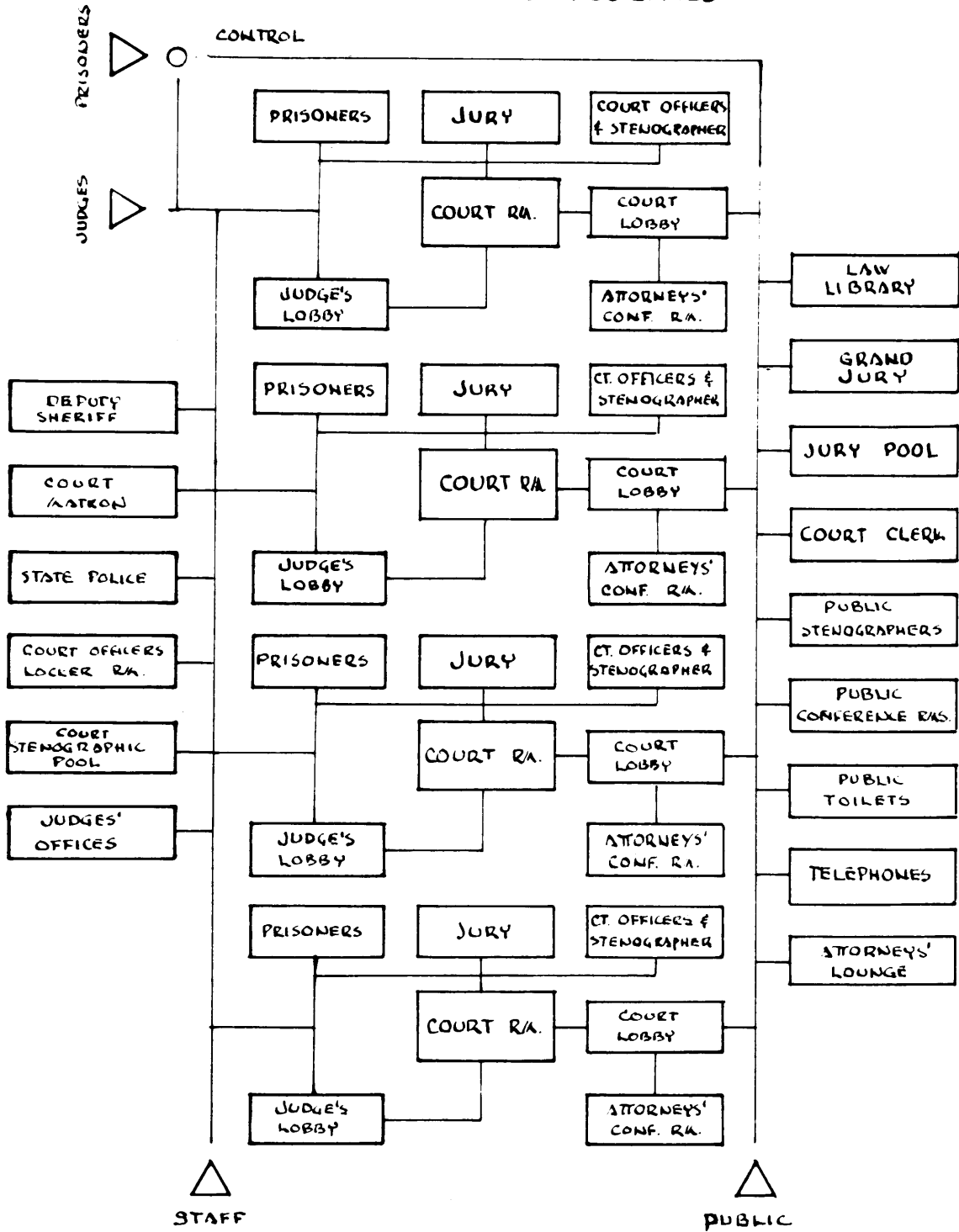
A court or conference room would thus be selected according to the reasonably anticipated need. The judge would be assigned to the case in the usual manner. A small amount of concern on the part of the Court Clerk in the scheduling of cases would avoid any complaint about inconvenience. After the system became reasonably established, the desire for formal spaces for non-jury proceedings would undoubtedly be greatly reduced.

The Court already hopes that with the development of new legal procedures the proportion of jury trials will be reduced. The total result would be a more effective adjudication of a larger number of cases with a corresponding promptness of all proceedings conducted in appropriate surroundings.

The proposed building would include the following facilities to serve the court as a whole; their relationships to the courts are illustrated in Fig.

Figure 15

A DIAGRAM OF COURT ELEMENTS AND RELATED FACILITIES



I. Each of the following would be provided with all basic auxiliary spaces previously described.

- a. Four large court rooms, each with a three-judge bench and seating for fifty spectators 3200 s.f. each
- b. Four small court rooms, each with a three-judge bench and seating for twenty spectators 2400 s.f. each

II. Each of the following would be without auxiliary spaces but fully equipped for visual aids. When not specifically assigned, these rooms would be available for public use by individuals at court.

- a. Two large hearing rooms for master and auditor hearings and for non-jury traffic cases 900 s.f. each
- b. Two small hearing rooms for master and auditor hearings and for non-jury traffic cases 600 s.f. each
- c. Four small conference rooms with folding partitions separating pairs 300 s.f. each

III. Staff facilities serving the court would include the following:

- a. Superior Court Clerk facilities, including storage of recent and current dockets, clerks office, information counter, copying desks and access to dead storage. 2200 s.f.
- b. A jury pool for 250 with toilets and closets. 2500 s.f.
A podium is to be centrally located and stations for a court officer and court matron nearby, both located for maximum control of toilets and egress.

- c. A grand jury room equipped to function as a conference room since its procedures are secret but informal. Toilets and outside waiting room for witnesses to be provided. 600 s.f.
- d. Court officers lounge and locker room including an office for the chief court officer 900 s.f.
- e. Relief room with a single lounge and toilet and with desk and bed in individual offices for occasional use of a court matron, deputy sheriff and state police officer detained by requirements of the court. 800 s.f.
- f. Court stenographic pool 400 s.f.
- g. Lounge for the Bar with toilets, coat rack, and telephones. 500 s.f.

In addition to these requirements, public toilets, lounges, a lobby and telephones would be provided.

Footnotes

- 1 Conklin, Edwin P., Middlesex County and Its People, Lewis Historical Publishing Company, New York, New York, 1927, p 109.
- 2 Atkins, Ralph A., Massachusetts Counties under a Microscope, National Municipal Review, Vol. 28, March, 1939, p 219.
- 3 Butler, Wilson R., The Government of the New England States, Charles Scribner and Sons, New York, New York, 1906, p 31.
- 4 Conklin, Edwin P., op. cit., p 113.
- 5 Mariner, Elwyn E., This Is Your Massachusetts Government, The Lexington Press, Inc., 1956, pp 110-1.
- 6 Mariner, Elwyn E., op. cit., p 109.

Chapter V

County Administration Building

An initial examination of the public functions and services provided by the county leads to the separation of three types of activities. The first is judiciary; the second, with an equally long history, is that of record keeping for the courts and citizens of the county, and the third is the administration of county services. The judiciary and county administration activities have been discussed at length; only a few comments on record keeping need be added here.

Record keeping began on September 9, 1639, when a colonial law was passed requiring the courts "in and around" Boston to keep records of "wills, administrations, inventories, births, marriages and deaths of all men, houses, and lands."¹ The growing volume of records kept by the several agencies now approaches proportions of the irresistible force. The courts generally are adamant about throwing away anything. Too, there is a deep concern about the possible unauthorized alteration of public papers. This necessitates the typing of all duplicates as well as original documents, the reasoning being that an erasure or alteration can be identified on an original but it cannot be identified on a document reproduced by photographic or similar methods.

This reluctance seems questionable where original documents could be easily restricted to handling by employees of the courts. Where the authenticity or content of documents requires them to be protected or withheld from the public, they are impounded anyway. The same questionable attitude exists where instruments have been superseded to the point of having no more than

limited historic value. Contrary, in the case of the Deeds Registry, no original is involved.

Each instance where a photographic process could be employed would seem to be one storage problem solved by virtue of microfilm. But this is not quite true. The more frequently a document is to be referred to, the less desirable microfilm would be since it involves greater wear and tear on the film strip and a greater quantity of expensive viewing equipment. The question of emulsion deterioration is easily resolved by the planned reproduction within the period of the film's useful life. Present standards describe this period as one hundred years under proper atmospheric conditions.

There does seem to be a great bulk of records of unchallengeable content and simple historic value, the reduction of which would be a great convenience to the county. The City of Boston is now in the process of doing this². However, speculation in this area would necessarily bear in mind the very rapid developments in the field of classification, use and storage of information.

Existing facilities show signs of being unable to keep up with the changing information processing methods, but they even more obviously evidence an inability to satisfy the changing space requirements of the county administration. No better example can be found than the currently projected alterations and addition by Boston architect James H. Ritchie. Completed four years ago, it is the fourth set of plans executed since any work of this nature has been executed. If constructed now, the facilities provided some agencies, such as the Probation Office and District Attorney, would be inadequate for current needs.

The designer is tempted to provide a grand space labeled "Records Hall" reminiscent of the original concept of use for the existing Registries of Deed and Probate. But, in time, it would undoubtedly be as misused or inappropriate as the Deeds and Probate spaces are now. The possible changes in county administration and public service have already been speculated about; the related changes in physical plant are correspondingly speculative.

Thus, it is resolved that the most flexible spaces for both records and people will prove the most useful. Each existing county building stands as eloquent evidence of the error of any other conclusion.

The elements listed below are thus to be included in the County Service Building.

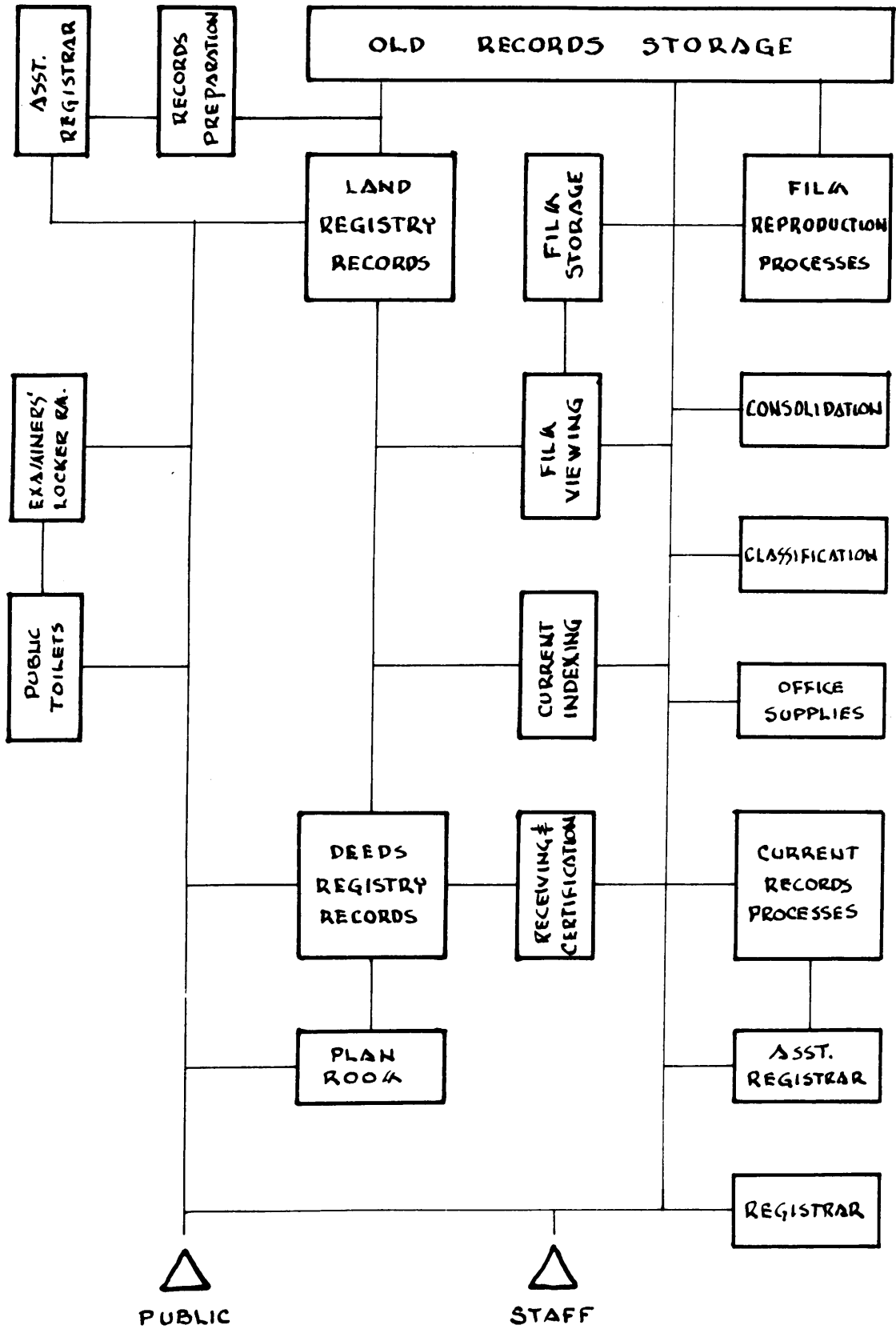
A. Registry of Deeds

As an institution this Registry is older than our nation. Records dating back to 1639 are readily available and quite unpretentiously catalogued. Originally the Clerk of Court served as Registrar and was appointed by the court he served. The state constitution provided for separate elective offices of Court Clerk and Deeds Registrar. When the land court registry was established, the Deeds Registrar was also designated assistant Land Recorder.³

The Registry copies almost any certificate presented to it for public record. Though this sounds simple enough, this agency has more employees and occupies more space than any other in the county government. The number of deeds and certificates recorded is great and growing ever more rapidly. The effort to currently and cumulatively cross-index them accurately is staggering.

Figure 16

A SCHEMATIC DIAGRAM OF THE DEEDS REGISTRY



The records are chronologically filed by book and page number and copies are bound in books of six hundred pages. That is the end of processing the record, but it is just the beginning of its indexing. An abstract of the certificate or deed is made, checked and double-checked. Daily summaries of these abstracts are made available to the public and two more copies are used for compiling the duplicate current year alphabetical indices. Where a deed has three grantors and four grantees, for example, seven separate entries are made in duplicate by hand, together with the abstracted description of the deed. These two sets of entries are later checked against each other for accuracy.

At the year's end, the current indices are rearranged alphabetically and again carefully checked. This is called "classification." Then these yearly alphabetical indices are "consolidated" into five, ten or fifty alphabetical indices under a careful system of checking each handwritten entry. At first glance the whole operation seems to antedate Guttenburg's invention.

As might be expected, it is here that the photographic processes are widely used. Now in operation for three years new methods are being used that reduce the amount of penmanship and errors. The system developed also reduces the number of volumes referred to by conveyancers and title searchers. A careful description of this whole records processing method is presented in Appendix II, prepared by its developer, the Micro Photography Company of Boston.

The system offered by this organization, but not in use by the county, would reduce the 600 page content of a record book to one $8\frac{1}{2} \times 14$ page of microfilm positives. This sheet, easily and cheaply replaced, is indexed at the margin to indicate the book and page numbers keyed to a simply operated viewer.

Also proposed is a coin operated attachment (not now in production) which would print a full size copy in a few seconds. Some of the equipment for this system is pictured on the back page of Appendix II. The impact of reducing the nine thousand record books to only nine thousand sheets of paper is hard to grasp.

At the present time documents are recorded at the rate of 125,000 per year, and the rate is increasing 10,000 each year. This volume amounts to 208 bound record books each year, plus the related index volumes. As might be imagined, this creates the county's greatest record storage problem. In addition to the proposed methods, it might now be possible to microfilm the oldest and infrequently used records to further reduce the active storage space requirements. A listing of the Registry of Deeds space follows and is accompanied by a diagram of their functional relationships, Fig. 16.

1. Office of the Registrar and related reception- secretarial space	500 s.f.
2. Staff conference room	400 s.f.
3. Information and document receiving counter	600 s.f.
4. Active records room	10000 s.f.
Record books	
Current classified and consolidated grantee and grantor indices	
Plan books	
Mortgage and attachment portfolio files	
Copying desks for conveyancers	
5. Current record processes	2250 s.f.
6. Classification office with live storage area	1500 s.f.
7. Consolidation office with live storage area	1500 s.f.

- | | |
|--|-----------|
| 8. Microfilm viewing, copy comparing | 600 s.f. |
| 9. Reproduction facilities with live storage, office, photostat, microfilm, and darkroom equipment | 2400 s.f. |
| 10. Plan offices with drafting room, storage and public space with counter | 1500 s.f. |
| 11. Supplies and printed stock other than photo supplies | 250 s.f. |

B. Land Court Registry

The Land Court or Court of Registration settles boundary disputes between property owners and issues title certificates based on the court's findings. It is a state court. The Land Registry keeps a record of title transfer and other actions involving only the properties upon which the court has issued certificates. These records are separately maintained, although its operation is managed by the Deeds Registrar. The number of certificates handled is much smaller and since all proceedings pertinent to a certificate are entered in longhand on the back of the certificate itself, the referencing is simpler.

The indexing is on a biannual basis with no cumulative indexing necessary since the certificates specify what previous certificates they supercede. This arrangement makes searching simple and direct. All certificates and duplicates are typed as dictated by the court. Certificates are bound in volumes of two hundred each. No photographic process is involved.

Where possible, Deeds Registry facilities would be utilized and in addition to those, the following spaces are required.

- | | |
|---|-----------|
| 1. Office for assistant registrar and secretary | 300 s.f. |
| 2. Records room and information desk | 4000 s.f. |
| Certificate books | |
| Grantee and grantor indices | |
| Present owner card file | |
| 3. Certificate processes and copying | 600 s.f. |

C. Registry of Probate

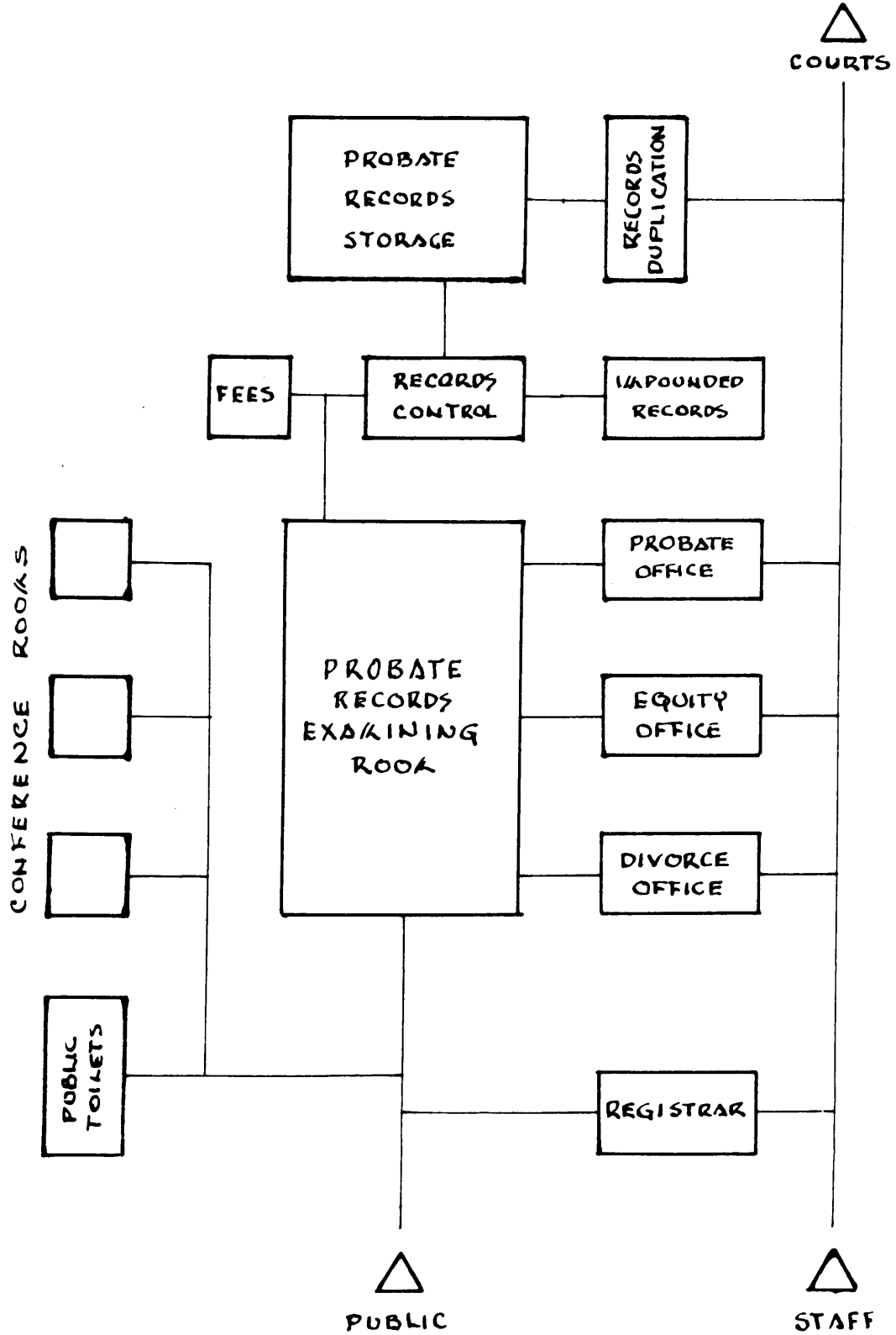
The Registrar serves the Probate Court in the same way the Clerk serves Superior Court and as might be expected, the record handling is similar. Besides court dockets, there are files for adoption, guardianship, trusteeship, executor acts, divorce and annulment papers. There are three subdivisions of administration - Probate, Divorce, and Equity.

In 1957, the following activities, among others, were accounted for: 14,488 probate decrees issued; 19,480 papers recorded; and 2,485 divorce decrees issued. About one-fifth of the actions are contested, and in connection with the above, 263 trial sessions were conducted. The filed dockets are available to the public for inspection by request, and impounded records are kept in a vault. One peculiarity of Middlesex's system is that no accurate check is made to make certain all the papers of a docket are returned. Consequently, many dockets are simply empty envelopes and there is no copy or description of what had been inside. Other counties exercise a system of careful checking and deny access to those who abuse their public rights. A similar improvement in method should be anticipated for this Probate Registry.

The functional relationships of the subdivisions of this agency are suggested in Fig. 17 and have the following space requirements.

Figure 17

A SCHEMATIC DIAGRAM REGISTRY OF PROBATE



- | | |
|---|-----------|
| 1. Probate records room with active files, reading desks, fee cashier, and a docket check-out counter | 4000 s.f. |
| 2. Office of the Registrar with adjacent reception-secretarial area | 400 s.f. |
| 3. Offices of Assistant Registrar and records processes | 1000 s.f. |
| 4. Divorce records office and work space | 1000 s.f. |
| 5. Equity records office and work space | 800 s.f. |
| 6. Docket storage and typed copying | 5000 s.f. |

D. The County Commissioners

A Court of General Sessions was created in 1782⁴. In 1819, it was given the responsibility of administering county affairs previously exercised by the Circuit Court of Common Pleas⁵, such as: erection and repair of jails and county buildings; allowance and settlement of county accounts; estimation, apportionment, and issuing warrants for assessing county taxes and collecting them; granting licenses; laying out, altering and discontinuing highways; appointing committees; and ordering juries⁶. This Court was replaced by the County Commissioners by a law passed on February 26, 1828, which provided for four commissioners appointed by the governor with a clerk of courts serving as Clerk of Commissioners. In 1826, a Commission of Highways had been created with five commissioners appointed by the governor with the consent of the Council. The function of this Commission was absorbed in the duties of the county commissioners created by the 1828 law.

The County Commissioners are principally occupied with maintenance and operation of county buildings, correctional institutions and other properties. The conspicuous exception is the county's jail which is operated by the sheriff. The general functions and duties of the Commissioners have been discussed previously.

The space requirements for the Commissioners are listed below.

- | | |
|--|-----------|
| 1. Public reception and general office with service counter and file storage | 1000 s.f. |
| 2. Commissioners offices. (The present situation groups the three commissioners into one office to avoid suspicion of separate (political but illegal) dealings. For this safeguard to be effective the three would necessarily remain together 24 hours a day. Thus, this space prerequisite is discarded in deference to the dignity of the office.) | 600 s.f. |
| 3. Commissioners hearing room. Convenient enough for meetings to be conducted spontaneously. | 700 s.f. |
| 4. Supply room | 100 s.f. |

E. County Engineer

Middlesex County maintains an engineering staff which gives substantial help to small towns in making surveys and developing plans. They are also responsible for maintaining some bridges and inspecting some dams.

The space requirements for the County Engineer are as follows.

1. Reception area with counter	200 s.f.
2. Chief engineer's office	200 s.f.
3. Drafting room for ten engineers	2000 s.f.
4. Plan file vault	250 s.f.

F. County Treasurer

Until 1654, the Treasurer of the Colony acted as county treasurer. In that year, a law provided for county treasurers to be elected annually, and similar laws remained in force until 1855⁷. The state constitution amendment that year provided for a six-year term of office.

The receipt, custody, and disbursement of county funds is the responsibility of the county treasurer. All county officers are required to give receipts of fees and other charges to the county treasurer. He is the only official permitted to pay out county money. He keeps the official record of receipts and is also the treasurer and record keeper for the County Retirement System.

The space requirements for the treasurer are as follows.

1. Reception and teller windows (a smaller number than would be expected if the treasurer dealt with the general public)	300 s.f.
2. General office with active files	1500 s.f.
3. Treasurer's office	400 s.f.
4. Assistant treasurer's office	250 s.f.
5. Conference room	200 s.f.
6. Vault	300 s.f.
7. Supply room	100 s.f.

G. District Attorney

The District Attorney is not legally required to seek out crime. While this might seem peculiar in areas where county agencies govern large areas of unincorporated land, the arrangement seems logical in view of Massachusetts' corporate situation. However, this office is none the less busy for its situation. In fact, it is one of the more rapidly growing agencies. There is large cooperation with the county probation office so that both are growing with changing public attitudes about the public services rendered by these agencies.

The space requirements for this agency follow.

1. Public lobby and reception	420 s.f.
2. District Attorney's office	550 s.f.
3. District Attorney's secretary's office	200 s.f.
4. Eight assistant district attorneys' offices	200 s.f. each
5. Stenographic pool	800 s.f.
6. Vault for evidence and impounded records	250 s.f.
7. Stock room	150 s.f.

H. County Probation Office

As a part of the court system, the probation office works with the district attorney to prevent crime by helping previous offenders and delinquent individuals to lead more orderly lives. The probation officers conduct remedial conferences with indicted persons to establish background material for the court. This is contrasted with the investigation of crime and collection of evidence for prosecution. Paroled prisoners also report to the probation

office as required by the court. This agency does not process juvenile cases. The district court cooperates with the Division of Youth Service which has a staff and facilities to provide individualized care, study, and treatment of young persons brought before the court.

The area requirements of the Probation Offices are as follows.

- | | |
|--|---------------|
| 1. Public lobby and waiting room with service desks | 300 s.f. |
| 2. Chief probation officer's office | 500 s.f. |
| 3. Four probation officers' offices | 200 s.f. each |
| 4. Probation general offices with rooms for interviewing, conferences, and psychiatric examinations, non-court and pre-court criminal proceedings. | 1500 s.f. |
| 5. Staff conference room | 200 s.f. |
| 6. Convicted criminal interviewing and records processing | 800 s.f. |
| 7. Record vault | 200 s.f. |
| 8. Supply room | 100 s.f. |

I. County Jail

The existing antiquated jail and House of Correction fail to distinguish those in pre-trial custody, youths, and short-term convicted criminals. The remainder of the convicted are sent to the county barracks at Billerica or to state institutions. The sheriff's house, though offered free, seems to be an unhappy situation for family life or efficient operation of a prison. Rather than to provide a maximum security prison, it seems appropriate to

assume that such prisoners, constituting a small minority, shall be detained elsewhere.

Eliminating living quarters for the sheriff, maximum security prisoners and convicts, the county jail requirements are reduced to simple custody of about twenty prisoners of each sex. This unit may reasonably be included in the administration building where its proximity to the District Attorney, Probation Office, and Courts promises a convenient custody, processing, and transportation situation.

The following jail requirements are suggested.

1. Public lobby and service desk	400 s.f.
2. Jailer's office	200 s.f.
3. Guard and matrons locker and shower rooms	600 s.f. each
4. Cells for twenty with related dayroom for men	800 s.f.
5. Cells for twenty with related dayroom for women	800 s.f.
6. Supervised visiting area	100 s.f.
7. Jail kitchen	500 s.f.
8. Jail laundry	400 s.f.
9. Supply room	250 s.f.
10. Dental laboratory and office	300 s.f.
11. Medical office and examining room	300 s.f.
12. Prisoner photographic, admission processing, and clothing room	100 s.f.
13. Prisoner waiting area	200 s.f.
14. Prisoners' shower rooms	100 s.f. each

J. County Staff and Public Service Facilities

In addition to departmental needs, facilities for use by the staff as a whole and by the general public ought to be provided. Some of these, the cafeteria and lounge, for example, are presently omitted, and others, such as the maintenance department and parking, are so inadequately provided for as to offer no reasonable program. There are now a total of approximately 540 employees in the East Cambridge buildings. The following facilities are suggested.

1. Offices for the county judges, masters and auditors

- a. Three probate judges with clerks' anterooms
- b. Eight superior court judges with clerks' anterooms
- c. Offices for a total of fifteen masters and auditors
- d. Offices for the medical examiner, agricultural agent and others for future expansion of service agencies
- e. Combined office for ten public stenographers
- f. County Law Library. This library is reputed to be one of the best of its kind in the nation. The natural pride, as well as existing overcrowded conditions dictate considerably enlarged facilities.

i. Information desk and control area	200 s.f.
ii. Librarian's office and work room	800 s.f.
iii. Assistant librarian's office and work room	500 s.f.
iv. Supply room	200 s.f.
v. Reading room	2500 s.f.
vi. Stack area	4000 s.f.

2. Cafeteria and lounge. The existing situation borders on chaos. The lunch rooms in the nearby neighborhood are so unappealing to so large

a number of employees that each agency, and sometimes separate subdivisions of agencies provide lunch rooms for their employees. In many cases, there are separate lunch rooms for men and women. Usually a hot plate is provided. The proposed addition by Architect Ritchie perpetrates this system which is in fact unsanitary and unsafe. The following areas are suggested.

- a. A cafeteria to seat 400, intended for employees but also open to the public.
- b. Related smoking lounge with toilets and powder room suited to the lunch hour routine.

In addition to the above, lobbies, toilets and telephones are to be provided as may be accommodated by the building's architecture. Another departure from present practice is the omission of a great number of small toilets which serve small groups of employees and individual executives. The existing arrangement has been possible only by virtue of the independence of several elected public officials and the pressure they are able to exert upon the buildings' designers. Nevertheless, it is here deemed excessive and detrimental to the planned flexibility of the building proposed by this thesis.

3. Conveyancers and Title Examiners' Locker Room. 500 s.f.

Although not employees of the county, members of this profession spend such long periods of time in the county building that lockers are provided for the safe storage of coat and purse.

In personal interviews, the concern for coat and purse was expressed by a number of employees and their supervisors. One solution would be to provide

employee locker rooms on every floor, but this seems impractical and might prove to be unmanageable. It is thus left for the detailed fitting-out of the building to satisfy this legitimate desire on an office or departmental basis. Thus no general employee locker room would be provided, since its use would be time consuming and since it would contribute a heavy load upon the interior circulation facilities.

4. County Building Maintenance Department. This organization has grown quietly and in doing so has steadily occupied more space abandoned by other groups. The areas now occupied are frequently inappropriate to their function and thus bear little resemblance to the actual needs. The following elements and areas are proposed.

- | | |
|--|-----------|
| a. Building Superintendent's office | 250 s.f. |
| b. Assistant Superintendent's office and waiting area with counter | 250 s.f. |
| c. Telephone switchboard room | 500 s.f. |
| d. Storage for janitorial supplies | 500 s.f. |
| e. Male maintenance employees' locker and shower room | 500 s.f. |
| f. Female maintenance employees' locker and shower room | 500 s.f. |
| g. Maintenance shops and machine room | 5000 s.f. |
| i. Plumbing shop and supply room | |
| ii. Electric shop and supply room | |
| iii. Carpentry shop and supply room | |
| iv. Paint shop, open can storage and supply room | |
| v. Receiving and warehousing | |
| vi. Boiler room | |

- h. County garage with prisoner handling facilities and tool room, for county-owned vehicles only 2000 s.f.
- i. Outdoor parking for 500 cars
- j. First Aid room and nurse's station 200 s.f.
- k. Mail room 200 s.f.

Footnotes

- 1 Hurd, Hamilton D., History of Middlesex County, J. W. Lewis and Co., Philadelphia, Pennsylvania, 1890, p ix.
- 2 Killam, Robert, "Films Replace 1822-1936 Paper Records", Boston Sunday Herald, January 5, 1958, p 3.
- 3 Mariner, Elwyn E., This Is Your Massachusetts Government, The Lexington Press, Inc., 1956, p 108.
- 4 Hatch, Howard S., History of Middlesex County, Massachusetts Selectman, April, 1938, pp 2-4.
- 5 Hurd, Hamilton D., op. cit., p xiv.
- 6 Hatch, Howard S., op. cit., p 2-4.
- 7 Conklin, Edwin P., Middlesex County and Its People, Lewis Historical Publishing Company, New York, New York, 1927, p 115.

APPENDICES

APPENDIX I

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Pellish, David Meyer, "A State Prison and Classification Center for Massachusetts," 1951.

Tekushan, Nicholas A., "A Classification-Reception Center for the Ohio Division of Correction," 1951.

Hornbeck, James S., "A Review of the New Skyscraper, Building Types Study 244", Architectural Record, March, 1957, pp 228-50.

"Civic Center for the City of Norfolk, Fifth Annual Design Awards Program," Progressive Architecture, January, 1958, pp 118-9.

"High Rise Office Buildings," Progressive Architecture, June, 1957, pp 157-193.

Cunningham, Bill, "Hynes Commends Series," Boston Sunday Herald, November 24, 1957, p 1.

Kellam, Robert, "Films Replace 1822-1936 Paper Records," Boston Sunday Herald, January 5, 1958, p 3.

"At Last a Transit Plan", Boston Herald, January 7, 1958, p 1.

"Called Conference of 41 Mayors," Boston Traveler, April 6, 1957, p 1.

"Cambridge Spurs Inner Belt Highway," Boston Herald, January 25, 1958.

"Governor's Choice" Boston Herald, November 23, 1957, p 4.

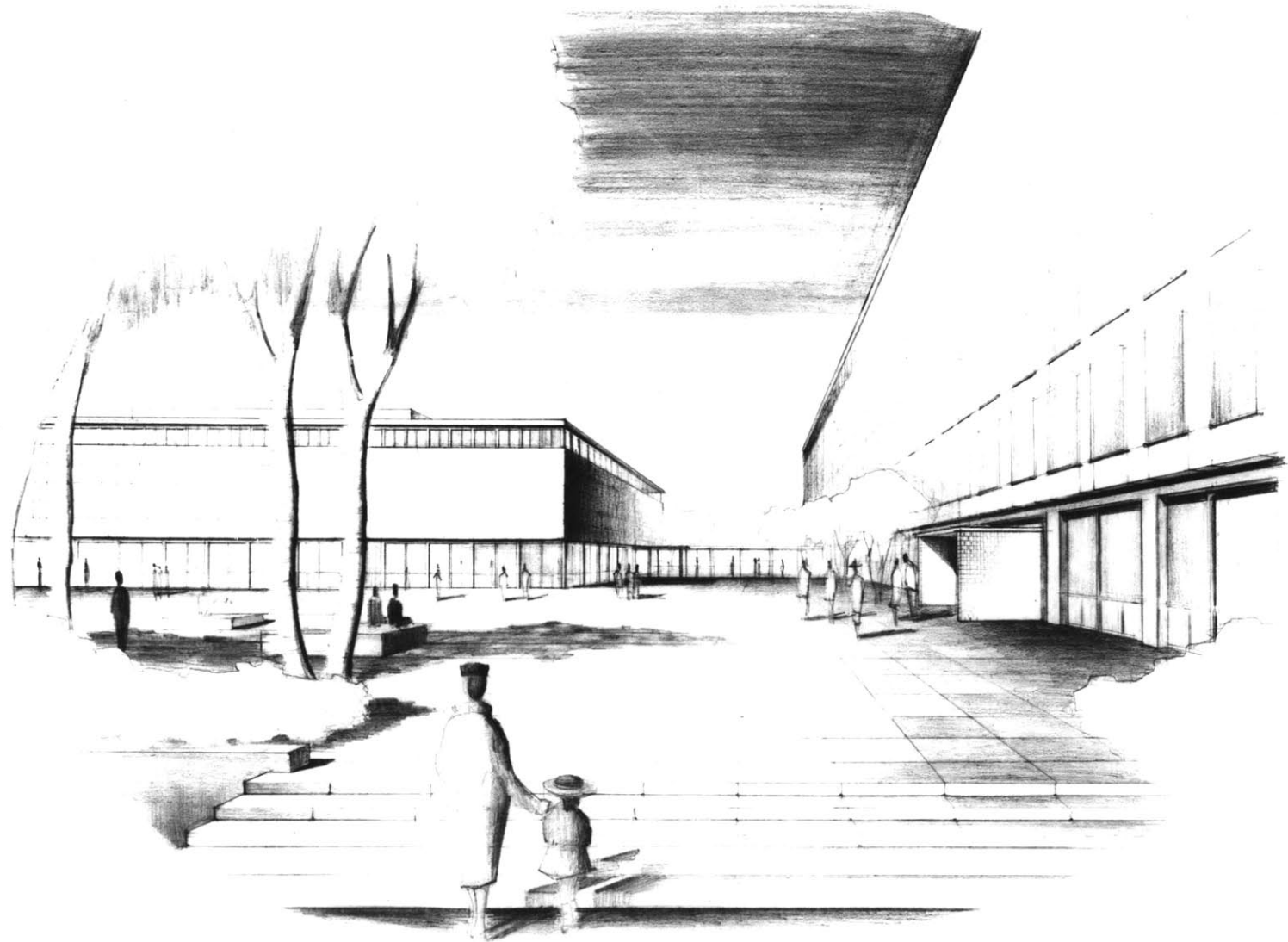
"State's District Courts Due for Even Greater Powers," Boston Sunday Herald, January 5, 1958, p 1.

Appendix II

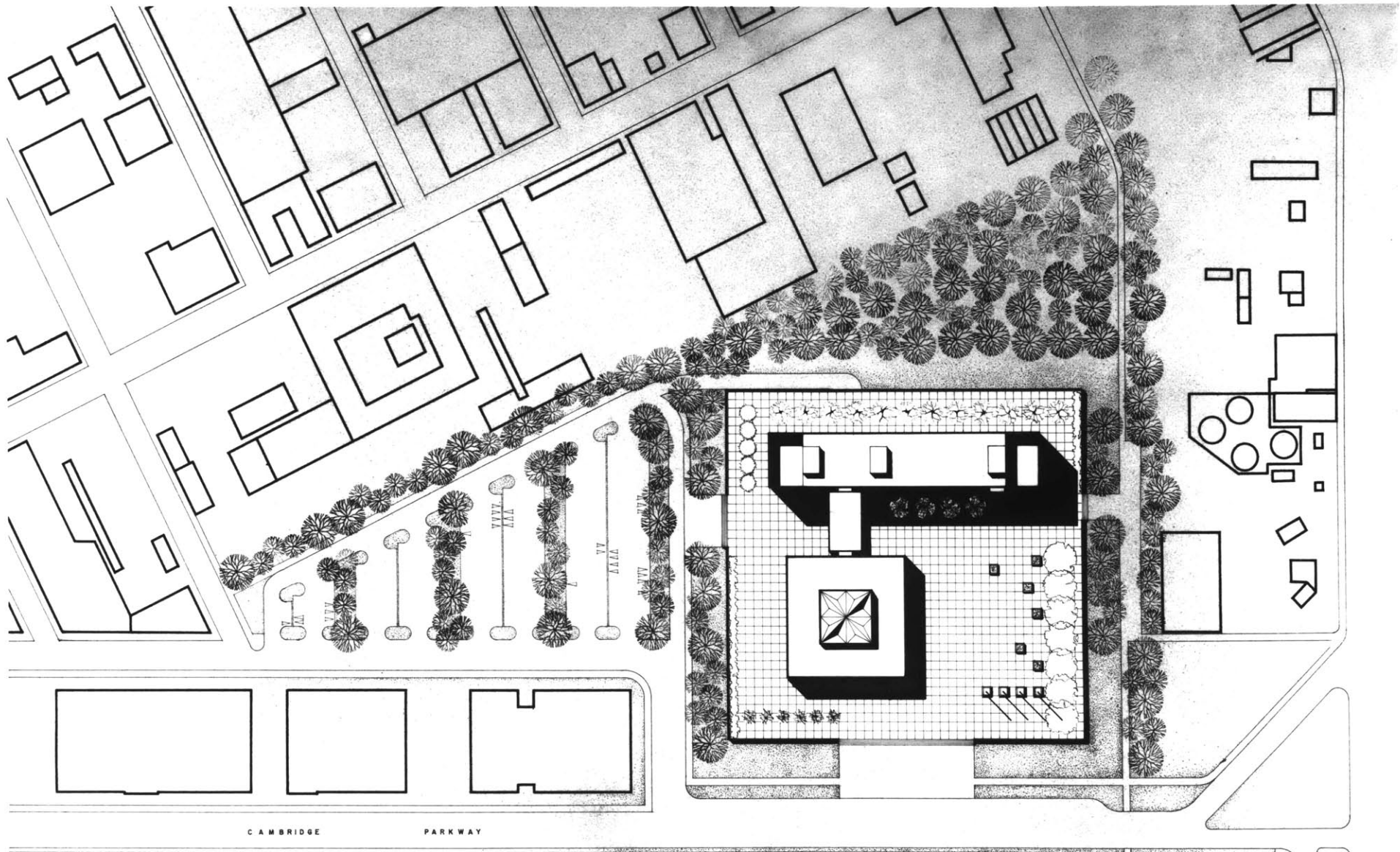
Modern Methods in the Middlesex Registry of Deeds

APR 20 1951





SHIRE FOR MIDDLESEX COUNTY
MASSACHUSETTS
ARCHITECTURAL MODEL BY
R. H. HARRIS, ARCHITECT
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

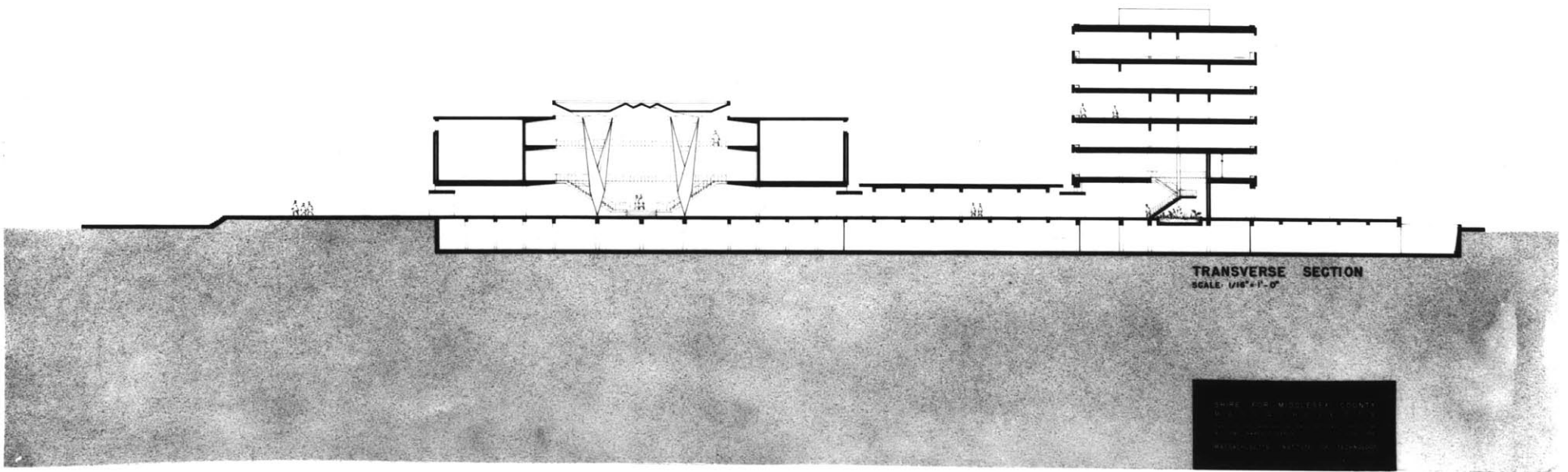


CAMBRIDGE PARKWAY

SITE PLAN
SCALE 50' = 1"

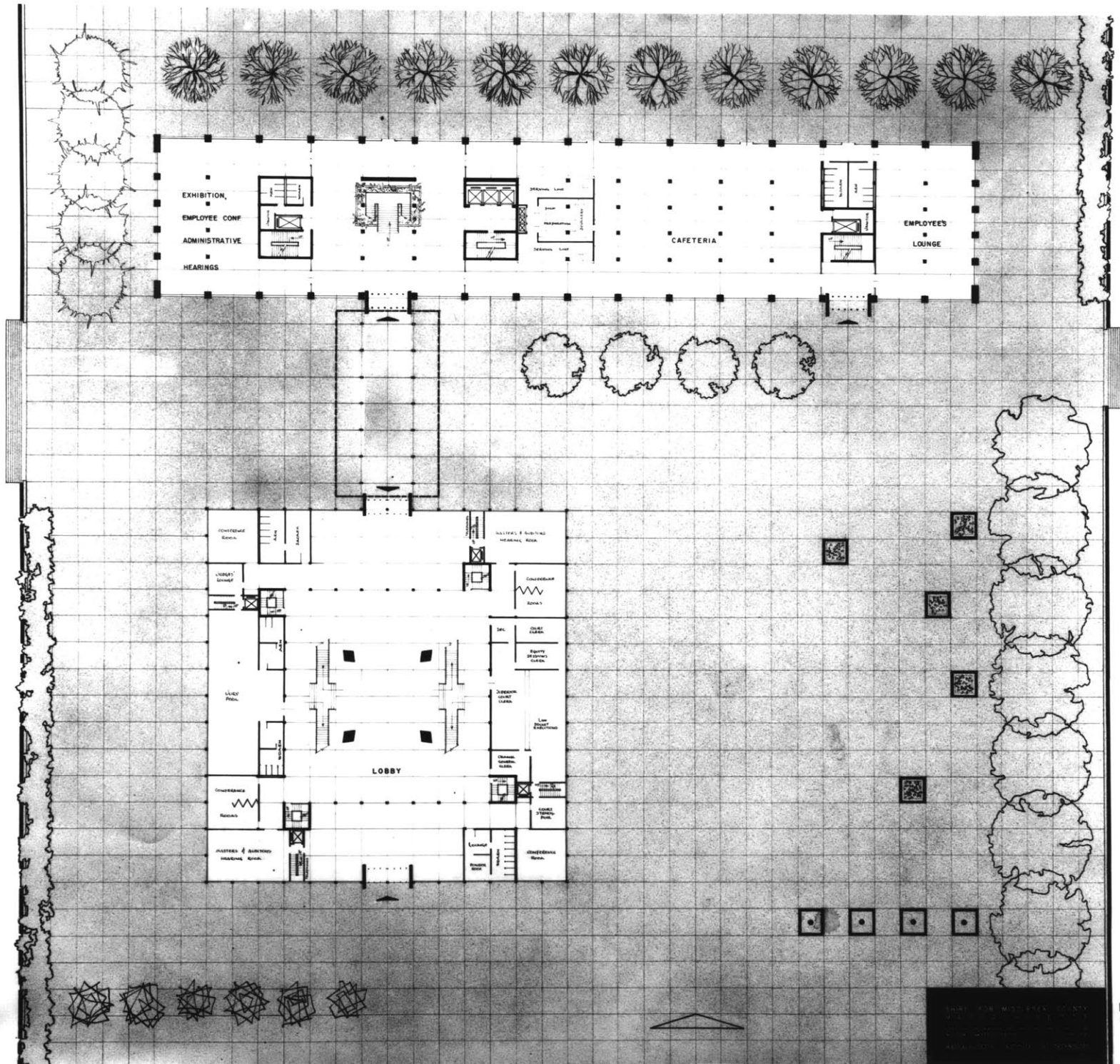
A SHIRE FOR MIDDLESEX COUNTY

SHIRE FOR MIDDLESEX COUNTY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

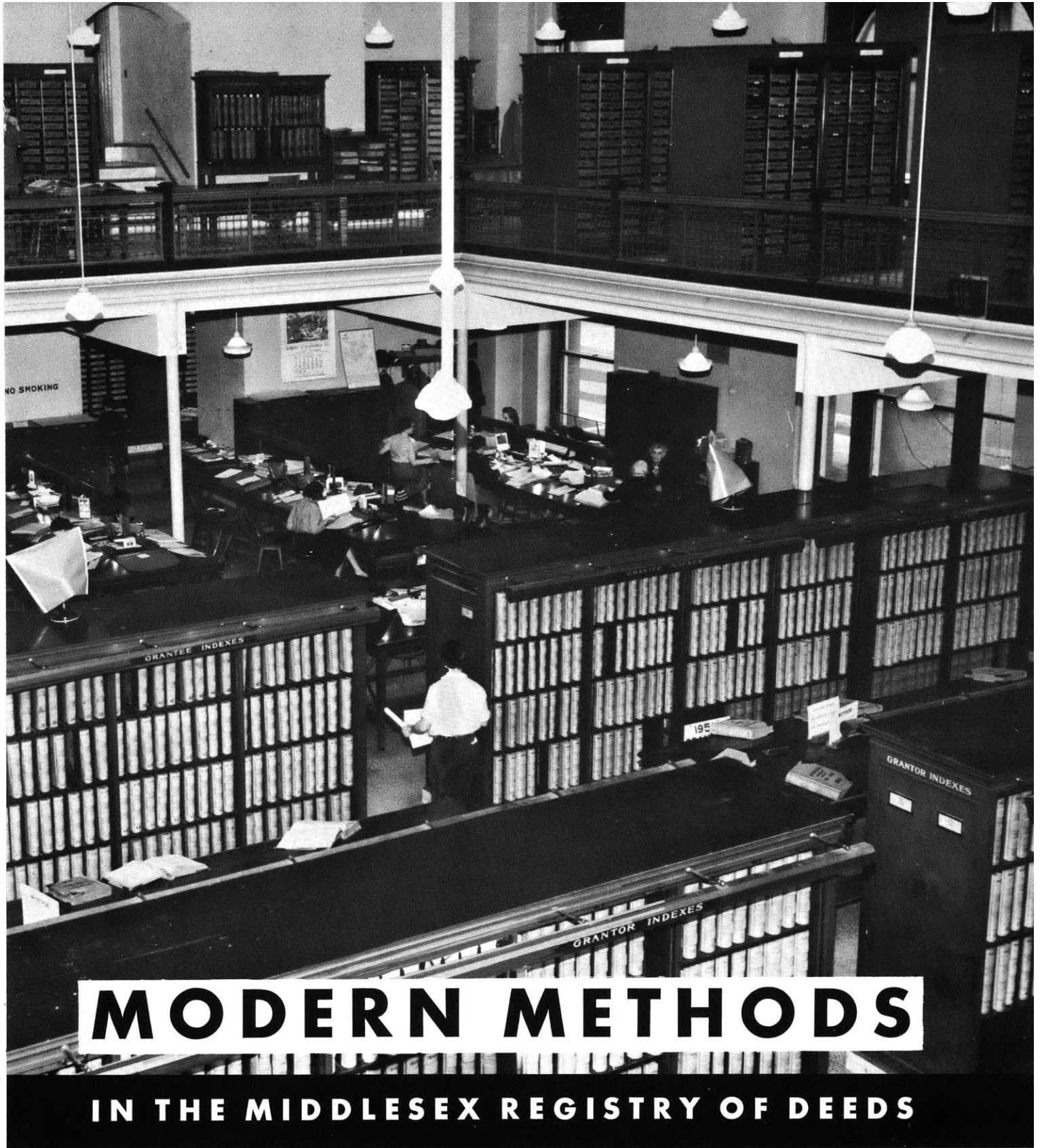


TRANSVERSE SECTION
SCALE: 1/16" = 1'-0"





FIRST FLOOR PLAN
SCALE: 1/16"=1'-0"



MODERN METHODS

IN THE MIDDLESEX REGISTRY OF DEEDS

RECORDING OVER 125,000 INSTRUMENTS ANNUALLY

COUNTY COMMISSIONERS: H. HERBERT APPLIN • WILLIAM G. ANDREW • THOMAS B. BRENNAN

PREPARED BY MICRO-PHOTOGRAPHY CO., BOSTON, MASS.

at the request of the following members of the Advisory Committee:

Joseph Fine, President of Mass. Conveyancers Association
Kendall L. Johnson, President of Middlesex County Bar Association
Francis J. Roche, President of Cambridge Bar Association
H. Herbert Applin, Chairman, Middlesex County Commissioners
Olin K. Nellson, Representing Middlesex County Bar Association



William B. Bailey

Register of Deeds

Southern District

Middlesex County

OWNED AND OPERATED BUSINESS FOR 27 YEARS

1940 through 1943 — Somerville School Committee

1947 through 1948 — House of Representatives

1950 through 1953 — Somerville Board of Assessors

1953 to present — Register of Deeds



COUNTER



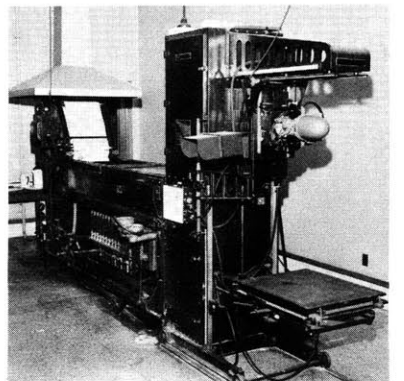
CASHIER



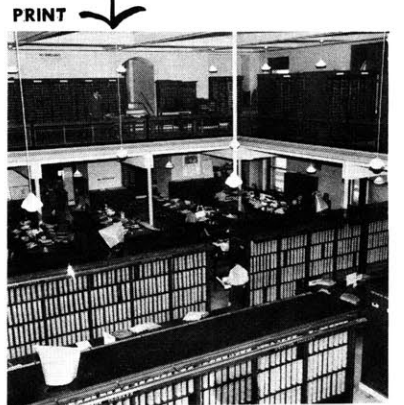
BLOCK TYPIST



FILM PROCESSING



AUTOMATIC ENLARGER



RECORD BOOK

What happens from the time an instrument is received until it appears in the record book and has been indexed ... This flow sheet and the following pages describe procedures as they will be upon completion of the new system.

FLOW SHEET



VERIFICATION

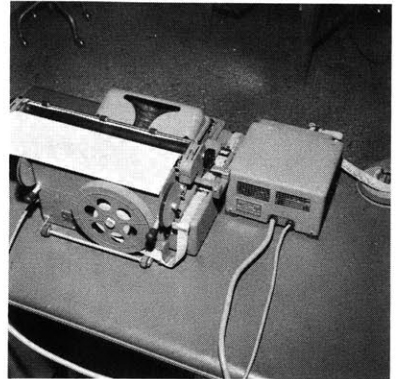


BOOK & PAGE ASSIGNED



FLEXOTYPIST

TAPE



ENCABULATOR

STRIPS

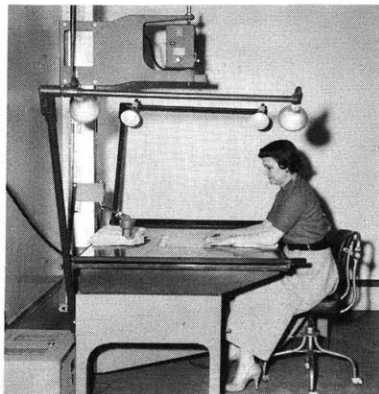


INJECTION FILER

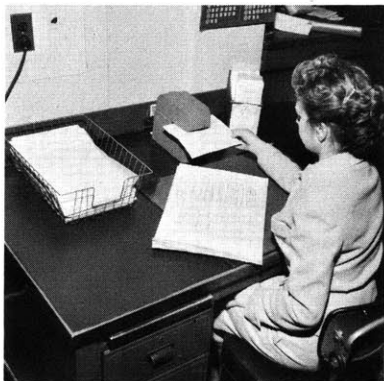
FILM

CURRENT INDEX REISSUED DAILY.
CUMULATIVE CONSOLIDATIONS REISSUED ANNUALLY.

INSTRUMENT



MICROFILM CAMERA



MAILING INSTRUMENT

FILM

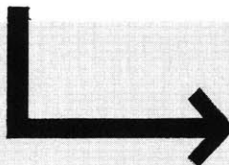


The conveyancer hands his documents to the counter man who checks them and enters in pencil the amount of the fee.



Conveyancer then presents the document to the cashier who (1) places it in the machine, (2) enters the fee and presses "recording" key, (3) enters Mass. tax and presses Mass. key and (4) enters Fed. tax and presses Fed. key.

THIS SIMPLE OPERATION FOR A DEED THUS ENTERS THE DATE, TIME, DOCUMENT NUMBER, FEE, FED. AND MASS. TAXES ON THE INSTRUMENT



FEB 18-56 PM 1244 365RE***6.25

We, F. Henry Stevens and Evelyn Stevens, husband and wife, as tenants by the entirety, and both of Medford, Middlesex County, Commonwealth of Massachusetts, and we, Frank Howard Stevens and Dorothea M. A⁺ unde +-

FEB 18 PM 363 RE 1244	5.50 L
FEB 18 PM 364 RE 1244	5.00 L
FEB 18 PM 365 RE 1244	6.25 L
FEB 18 PM 366 RE 1244	2.00 L
FEB 18 PM 367 RE 1244	5.00 L
FEB 18 PM 367 PL 1244	1.50 L
FEB 18 PM 367 PL 1244	1.50 L
FEB 18 PM 367 00:00	32.27 Δ

PM 361 PL 1244	1.50 L
PM 361 00:00	3.50 *
PM 362 RE 1244	5.00 L
PM 363 RE 1244	5.50 L
PM 364 RE 1244	5.00 L
PM 365 RE 1244	6.25 L
PM 366 RE 1244	2.00 L
PM 367 RE 1244	5.00 L
PM 367 PL 1244	1.50 L
PM 367 PL 1244	1.50 L

PM 420 RE 0452	2.00
PM 420 CO 0452	1.50
PM 421 RE 0452	2.00
PM 421 CO 0452	1.20
PM 421 RE 00:001,593.70	Z
PM 421 CO 00:00	54.30 Z
PM 421 PL 00:00	30.00 Z
PM 421 FS 00:00	651.45 Z
PM 421 MS 00:00	732.05 Z
PM 421 MI 00:00	6.65 Z
PM 421 00:003,068.15	Δ

It produces an itemized receipt for the customer showing the total of the transaction.

It produces a journal listing all the transactions in the order in which they take place.

It accumulates amounts in seven separate totals: recording, copies, plans, Mass. Tax., Fed. Tax, Misc. and grand total. Machine also functions as a bookkeeping machine for deposit account customers and operates the large figure remote counter showing document number for the convenience of examiners.

Note: (1) Until the cash register is moved to the counter, the counter man hands documents with the money to the cashier. (2) Tax entry subject to the approval of tax agencies. (3) Deposit account customers function to be installed soon.



The block Flexotypist creates in triplicate a record showing in numerical order the document number, names of grantors, names of grantees and kind of instrument. The original and duplicates are used by the public as a temporary record until entries have been made in the index. The triplicate, together with the code punched tape, accompanies the instrument.



The first of several verification steps takes place here. The work of the counter men, block typist and cashier are checked for accuracy.

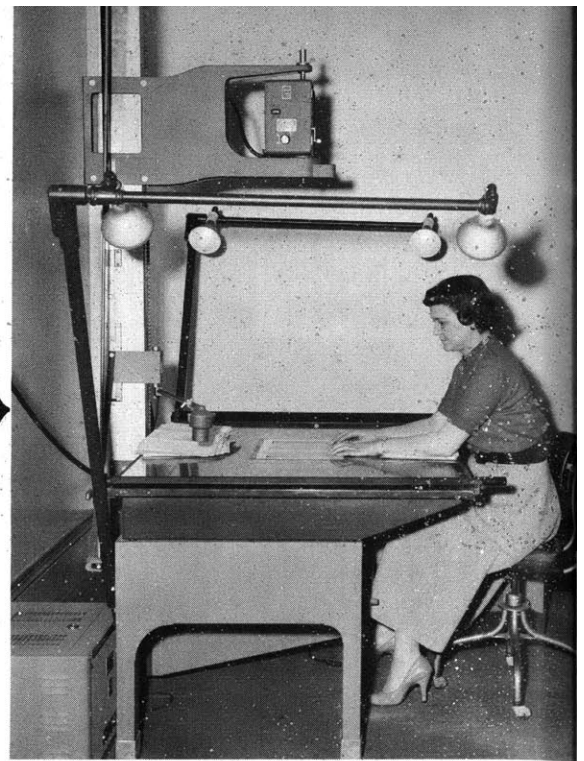
Book and page numbers are imprinted on the document by this electric numbering stamp.

Bk 8662 Pg 272





Flexotypists create the entry sheet. A code punched tape is a by-product of typing this entry sheet. Two-thirds of this typing operation is done automatically by another punched tape that was previously made by the *block typist, creating a new, corrected tape that includes book and page number and description.

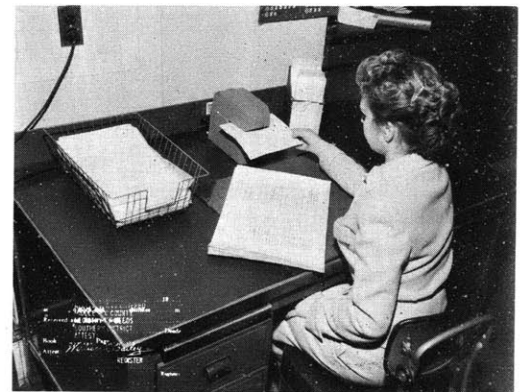


The instruments are then microfilmed at the rate of 300 per hour. Note the special vacuum holder.



Recording is attested with electric stamp before mailing. →

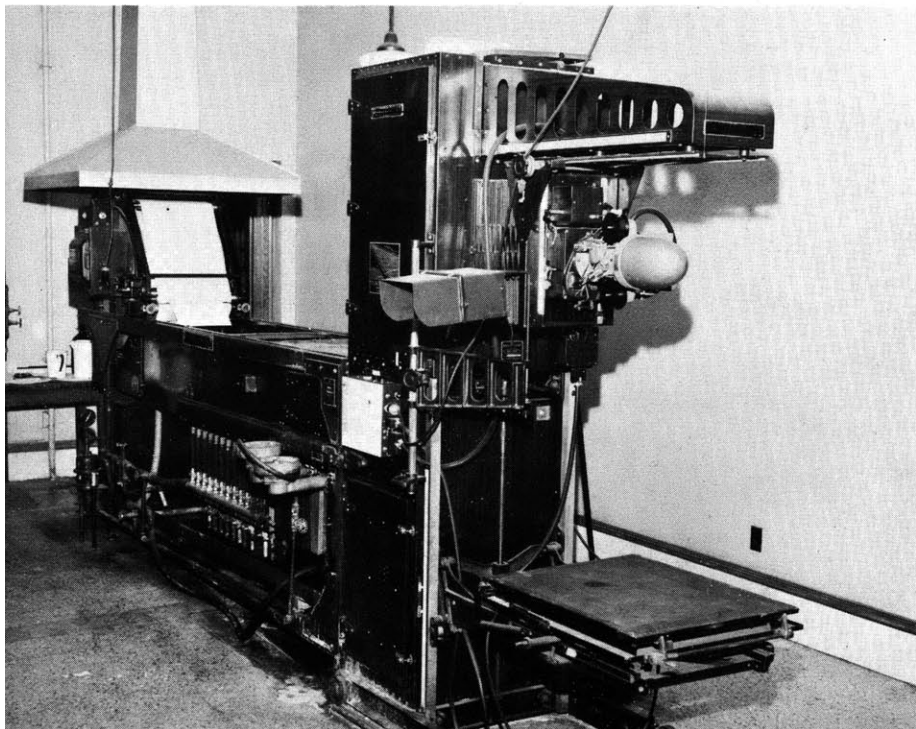
← Film processing is completely automatic taking only 35 minutes for a 100 foot roll, equivalent to a day's work comprising a 600 page record book.

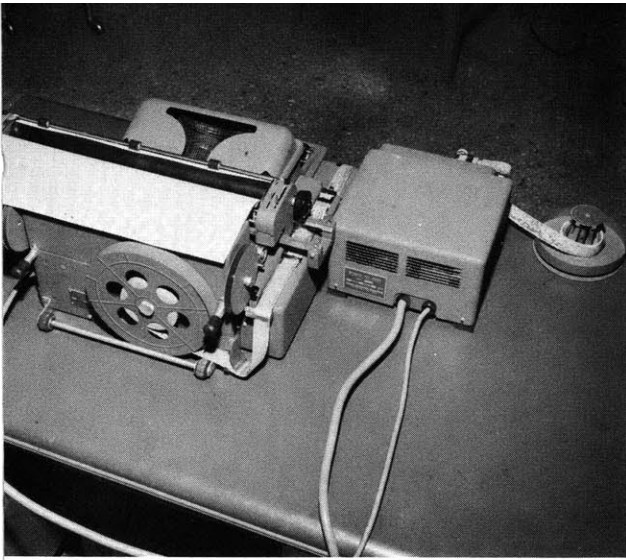


Unique automatic enlarger projects and prints microfilm on both sides of a sheet of paper. This enlarger creates an entire 600 page record book in about three hours as a fully automatic operation.

Due to eyestrain involved in constant use of negative photostats, the practice was to make from the negative photostat a positive which was bound in the record book. These were later filmed as required by law. This enlarger makes it possible to microfilm the original instruments with much greater efficiency than making a negative photostat, and it then automatically enlarges the film to produce positive prints of superior quality for binding. By-product of this technique is the microfilm to store off the premises as a security copy. The cost of making 200,000 negative photostats has been completely eliminated (about 40¢ each). The quality standard of the record books and security copies have been improved.

Block typist will start soon to create punched tape.





* MODEL OF ENCABULATOR, a data processing machine designed to type index cards automatically from by-product tape of the Flexotypist. It includes a memory unit that stores and feeds out data into the automatic typewriter in proper order to conform to the elaborate programming required. It electronically translates surnames into codes, stores and prints these codes in the proper columns. The Encabulator can type directly on the index strips or entries can be transferred to the strips photographically from paper.

A DEED INVOLVING 4 GRANTORS AND 3 GRANTEES APPEARS AS FOLLOWS:

IN THE BLOCK

536	CHORBAJIAN	YERVANT &UX	WALAZEK	RAYMOND &AL
	CHORBAJIAN	ELIZABETH &AL	SULLIVAN	JAMES F &AL
	JOHNSON	FREDERICK M &AL	MENDONCA	MARION &AL
	BAPTISTA	MANUEL &AL		

Shaded area typed manually — all other entries are automatic.

IN THE ENTRY SHEET

536	CHORBAJIAN	YERVANT &UX	WALAZEK	RAYMOND &AL
	CHORBAJIAN	ELIZABETH &AL	SULLIVAN	JAMES F &AL
	JOHNSON	FREDERICK M &AL	MENDONCA	MARION &AL
	BAPTISTA	MANUEL &AL		

8645 283 AYER CHAPMAN RD SALEM ST LOT 29 PL 7210 END

ON THE INDEX STRIPS FROM THE ENCABULATOR

12 15 56	CHORBAJIAN	612	YERVANT &UX	WALAZEK	RAYMOND &AL
12 15 56	CHORBAJIAN	612	ELIZABETH	WALAZEK	RAYMOND &AL
12 15 56	JOHNSON	525	FREDERICK M &AL	WALAZEK	RAYMOND &AL
12 15 56	BAPTISTA	132	MANUEL &AL	WALAZEK	RAYMOND &AL
12-15-56	WALAZEK	422	RAYMOND &AL	CHORBAJIAN	YERVANT &UX &AL
12-15-56	SULLIVAN	415	JAMES F &AL	CHORBAJIAN	YERVANT &UX &AL
12-15-56	MENDONCA	535	MARION &AL	CHORBAJIAN	YERVANT &UX &AL

8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210	END

IN THE INDEX (Photo-copied from index strips)

6 2 52	JOHNSON	525	FREDERICK L &UX EST	MILLER	JAMES H
10 14 51	JOHNSON	525	FREDERICK M &AL	FENDOLLY	LIZA
12 15 56	JOHNSON	525	FREDERICK M &AL	WALAZEK	RAYMOND &AL
5 25 53	JOHNSON	525	FREDERICK O &UX	BOSTON FIVE CENTS SV BK	
11 17 59	JOHNSON	525	FREDERICK P	TALLY	ROBERT J

7664 147	MAL	UPHAM & THIRTEENTH STS PT LOT 340 PL B 7
7306 19	ASHLD	COR BANCROFT & MT VERNON STS
8645 283	AYER	CHAPMAN RD SALEM ST LOT 29 PL 7210 END
8029 558	ARL	KIMBALL RD FMYL PEARL ST MYSTIC ST MORT
9323 456	WATER	HIGHLAND AVE PT LOT 9 PL B 258 P 25

* Note: This equipment designed for the performance of Items 2 and 3 of the Index Project, will be completed and turned over to the County upon completion of the contract.

5 19 50 JOHNSON	505 ERNEST S A&E	WALZHAM CO-OP BK	7531 504 WALTH OWETS ST MORT
5 18 50 JOHNSON	505 ERNEST S A&E	READING CO-OP BK	7644 237 BRADDO GALLIPORNIA RD LOT 42 FL 505-6 RND MORT
1 24 51 JOHNSON	505 ERNEST S A&E EST	NOT OF COMD SALE	7797 73 ARL PARK AVE
6 27 51 JOHNSON	505 ERNEST Y	ROSDORE O A&E	7870 401 ARL KENNEDY RD LOT 42 FL 5028-410
9 1 54 JOHNSON	505 BERTHER O EST		7896 130 WOB MAINST TAX 1952
7 26 50 JOHNSON	505 ETHEL E	DIS MORT	7698 368 DIS 5028-454 LUTHER M PARTIN MTOGR
10 23 51 JOHNSON	505 EVA L A&L	GALLAGHER	7551 94 MARL EAST MAIN ST
2 15 53 JOHNSON	505 EVA M EST	WINCHESTER CO-OP BK	7706 571 POSIN MORT 5328-63
2 13 51 JOHNSON	505 EVA M EST	AFF OF SALE	7706 572 AFF OF SALE 5328-63
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 276 WAT PALFREY ST LOT D PL B 311 P 7 MORT
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 277 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 9 54 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7825 250 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 2 55 JOHNSON	505 EVELYN M A&L	CARLTON	7913 308 WAT ORCHARD & WHITNEY STS
9 7 55 JOHNSON	505 F WALTER	MEDFORD CO-OP BK	7745 65 BURL WIND ST MORT
4 2 50 JOHNSON	505 FANNIE E A&L	KIRTH	7635 513 ASHBY OLD HIGHWAY TO ASHURNHAM MORT
7 10 53 JOHNSON	505 FANNIE E ADMA	FRABOY	7731 516 EVE CORSEY ST LOT 13 PL B 204
11 18 51 JOHNSON	505 FLORENCE E A&L	FRAMINGHAM CO-OP BK	7609 380 NAT LAKE AVE MORT
3 4 50 JOHNSON	505 FLORENCE E A&L	LINANE	7609 380 NAT LAKE AVE MORT
11 18 51 JOHNSON	505 FLORENCE E ADMA	TAPT	7630 122 MALDEN ASH ST 2 PGS MORT
10 28 51 JOHNSON	505 FRANCES G A&L	CAMBRIDGE SV BK	7510 484 CAMB FOLLEN ST MORT
7 6 55 JOHNSON	505 FRANCIS M A&L	LEHAN	7445 345 READS SOUTH & PROPOSED STS
1 28 51 JOHNSON	505 FRANK F	ORD FOR SIDEWALK ASMTS	7533 245 CAMB FRING ST
10 28 54 JOHNSON	505 FRANK F	AFF OF SALE	7972 3 AFF OF SALE 7031-403
11 3 51 JOHNSON	505 FRANK E EST	GROSSMAN	7408 215 WOB WTLA PROSPECT LZTS 166-7
6 2 50 JOHNSON	505 FREDERICK L A&E EST	MILLER	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
5 25 55 JOHNSON	505 FREDERICK O A&E	BOSTON FIVE CENTS SV BK	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT
11 17 50 JOHNSON	505 FREDERICK F	TALLY	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25
9 5 55 JOHNSON	505 FREDERICK M A&E	RYAN	7744 136 NEW LINWOOD AVE PROPOSED ST
5 18 55 JOHNSON	505 GARNETT L A&E	MACDONALD	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20
6 13 55 JOHNSON	505 GEORGE A&E	SEVERANCE	7921 4 ARL WASHINGTON AVE
6 13 55 JOHNSON	505 GEORGE O	WARGHOL	7937 565 WAKFD SWAIN PLACE GR OT
1 19 56 JOHNSON	505 GEORGE H A&E	PIANTODOSI ANTONIO A&E	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3
1 19 56 JOHNSON	505 GEORGE H A&E	PIANTODOSI ANTONIO A&E	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH
12 1 52 JOHNSON	505 GEORGE H A&E	NEWBURG	7841 134 GROTH SEE RECORD
8 15 54 JOHNSON	505 GEORGE S A&L EST	AFF	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38
7 1 51 JOHNSON	505 GEORGINA A&L	CLARK	GEORGE W

12 15 50 JOHNSON	505 FREDERICK M A&L	7408 215 WOB WTLA PROSPECT LZTS 166-7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
12 15 50 JOHNSON	505 FREDERICK M A&L	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7

Preceding strip is ejected, meshing with new strip

6 27 51 JOHNSON	505 ERNEST Y	BILLOTT	7570 421 ARL BIGHILL RD LOT 42 FL 5028-410
9 1 54 JOHNSON	505 BERTHER O EST	CITY OF WOBURN	7896 130 WOB MAINST TAX 1952
7 26 50 JOHNSON	505 ETHEL E	DIS MORT	7698 368 DIS 5028-454 LUTHER M PARTIN MTOGR
10 23 51 JOHNSON	505 EVA L A&L	GALLAGHER	7551 94 MARL EAST MAIN ST
2 15 53 JOHNSON	505 EVA M EST	WINCHESTER CO-OP BK	7706 571 POSIN MORT 5328-63
2 13 51 JOHNSON	505 EVA M EST	AFF OF SALE	7706 572 AFF OF SALE 5328-63
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 276 WAT PALFREY ST LOT D PL B 311 P 7 MORT
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 277 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 9 54 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7825 250 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 2 55 JOHNSON	505 EVELYN M A&L	CARLTON	7913 308 WAT ORCHARD & WHITNEY STS
9 7 55 JOHNSON	505 F WALTER	MEDFORD CO-OP BK	7745 65 BURL WIND ST MORT
4 2 50 JOHNSON	505 FANNIE E A&L	KIRTH	7635 513 ASHBY OLD HIGHWAY TO ASHURNHAM MORT
7 10 53 JOHNSON	505 FANNIE E ADMA	FRABOY	7731 516 EVE CORSEY ST LOT 13 PL B 204
11 18 51 JOHNSON	505 FLORENCE E A&L	FRAMINGHAM CO-OP BK	7609 380 NAT LAKE AVE MORT
3 4 50 JOHNSON	505 FLORENCE E A&L	LINANE	7609 380 NAT LAKE AVE MORT
11 18 51 JOHNSON	505 FLORENCE G ADMA	TAPT	7630 122 MALDEN ASH ST 2 PGS MORT
10 28 51 JOHNSON	505 FRANCES G A&L	CAMBRIDGE SV BK	7510 484 CAMB FOLLEN ST MORT
7 6 55 JOHNSON	505 FRANCIS M A&L	LEHAN	7445 345 READS SOUTH & PROPOSED STS
1 28 51 JOHNSON	505 FRANK F	ORD FOR SIDEWALK ASMTS	7533 245 CAMB FRING ST
10 28 54 JOHNSON	505 FRANK F	AFF OF SALE	7972 3 AFF OF SALE 7031-403
11 3 51 JOHNSON	505 FRANK E EST	GROSSMAN	7408 215 WOB WTLA PROSPECT LZTS 166-7
6 2 50 JOHNSON	505 FREDERICK L A&E EST	MILLER	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7

10 14 51 JOHNSON	505 FREDERICK M A&L	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT
12 15 50 JOHNSON	505 FREDERICK M A&L	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25
12 15 50 JOHNSON	505 FREDERICK M A&L	7744 136 NEW LINWOOD AVE PROPOSED ST
12 15 50 JOHNSON	505 FREDERICK M A&L	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20
12 15 50 JOHNSON	505 FREDERICK M A&L	7921 4 ARL WASHINGTON AVE
12 15 50 JOHNSON	505 FREDERICK M A&L	7937 565 WAKFD SWAIN PLACE GR OT
12 15 50 JOHNSON	505 FREDERICK M A&L	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3
12 15 50 JOHNSON	505 FREDERICK M A&L	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH
12 15 50 JOHNSON	505 FREDERICK M A&L	7841 134 GROTH SEE RECORD
12 15 50 JOHNSON	505 FREDERICK M A&L	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38

5 25 55 JOHNSON	505 FREDERICK O A&E	BOSTON FIVE CENTS SV BK	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT
11 17 50 JOHNSON	505 FREDERICK F	TALLY	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25
9 5 55 JOHNSON	505 FREDERICK M A&E	RYAN	7744 136 NEW LINWOOD AVE PROPOSED ST
5 18 55 JOHNSON	505 GARNETT L A&E	MACDONALD	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20
6 13 55 JOHNSON	505 GEORGE A&E	SEVERANCE	7921 4 ARL WASHINGTON AVE
6 13 55 JOHNSON	505 GEORGE O	WARGHOL	7937 565 WAKFD SWAIN PLACE GR OT
1 19 56 JOHNSON	505 GEORGE H A&E	PIANTODOSI ANTONIO A&E	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3
1 19 56 JOHNSON	505 GEORGE H A&E	PIANTODOSI ANTONIO A&E	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH
12 1 52 JOHNSON	505 GEORGE H A&E	NEWBURG	7841 134 GROTH SEE RECORD
8 15 54 JOHNSON	505 GEORGE S A&L EST	AFF	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38
7 1 51 JOHNSON	505 GEORGINA A&L	CLARK	GEORGE W

10 14 51 JOHNSON	505 FREDERICK M A&L	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT
12 15 50 JOHNSON	505 FREDERICK M A&L	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25
12 15 50 JOHNSON	505 FREDERICK M A&L	7744 136 NEW LINWOOD AVE PROPOSED ST
12 15 50 JOHNSON	505 FREDERICK M A&L	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20
12 15 50 JOHNSON	505 FREDERICK M A&L	7921 4 ARL WASHINGTON AVE
12 15 50 JOHNSON	505 FREDERICK M A&L	7937 565 WAKFD SWAIN PLACE GR OT
12 15 50 JOHNSON	505 FREDERICK M A&L	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3
12 15 50 JOHNSON	505 FREDERICK M A&L	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH
12 15 50 JOHNSON	505 FREDERICK M A&L	7841 134 GROTH SEE RECORD
12 15 50 JOHNSON	505 FREDERICK M A&L	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38

Roll separates and lower section retracts the width of one line

7 26 50 JOHNSON	505 ETHEL E	DIS MORT	7698 368 DIS 5028-454 LUTHER M PARTIN MTOGR
10 23 51 JOHNSON	505 EVA L A&L	GALLAGHER	7551 94 MARL EAST MAIN ST
2 15 53 JOHNSON	505 EVA M EST	WINCHESTER CO-OP BK	7706 571 POSIN MORT 5328-63
2 13 51 JOHNSON	505 EVA M EST	AFF OF SALE	7706 572 AFF OF SALE 5328-63
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 276 WAT PALFREY ST LOT D PL B 311 P 7 MORT
9 11 51 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7589 277 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 9 54 JOHNSON	505 EVANGELINE L	WATERTOWN CO-OP BK	7825 250 WAT PALFREY ST LOT D PL B 311 P 7 MORT
6 2 55 JOHNSON	505 EVELYN M A&L	CARLTON	7913 308 WAT ORCHARD & WHITNEY STS
9 7 55 JOHNSON	505 F WALTER	MEDFORD CO-OP BK	7745 65 BURL WIND ST MORT
4 2 50 JOHNSON	505 FANNIE E A&L	KIRTH	7635 513 ASHBY OLD HIGHWAY TO ASHURNHAM MORT
7 10 53 JOHNSON	505 FANNIE E ADMA	FRABOY	7731 516 EVE CORSEY ST LOT 13 PL B 204
11 18 51 JOHNSON	505 FLORENCE E A&L	FRAMINGHAM CO-OP BK	7609 380 NAT LAKE AVE MORT
3 4 50 JOHNSON	505 FLORENCE E A&L	LINANE	7609 380 NAT LAKE AVE MORT
11 18 51 JOHNSON	505 FLORENCE G ADMA	TAPT	7630 122 MALDEN ASH ST 2 PGS MORT
10 28 51 JOHNSON	505 FRANCES G A&L	CAMBRIDGE SV BK	7510 484 CAMB FOLLEN ST MORT
7 6 55 JOHNSON	505 FRANCIS M A&L	LEHAN	7445 345 READS SOUTH & PROPOSED STS
1 28 51 JOHNSON	505 FRANK F	ORD FOR SIDEWALK ASMTS	7533 245 CAMB FRING ST
10 28 54 JOHNSON	505 FRANK F	AFF OF SALE	7972 3 AFF OF SALE 7031-403
11 3 51 JOHNSON	505 FRANK E EST	GROSSMAN	7408 215 WOB WTLA PROSPECT LZTS 166-7
6 2 50 JOHNSON	505 FREDERICK L A&E EST	MILLER	7664 147 MAL UPHAM & THIRTIETH STS PT LOT 340 PL B 7
10 14 51 JOHNSON	505 FREDERICK M A&L	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT	
12 15 50 JOHNSON	505 FREDERICK M A&L	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25	
12 15 50 JOHNSON	505 FREDERICK M A&L	7744 136 NEW LINWOOD AVE PROPOSED ST	
12 15 50 JOHNSON	505 FREDERICK M A&L	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20	
12 15 50 JOHNSON	505 FREDERICK M A&L	7921 4 ARL WASHINGTON AVE	
12 15 50 JOHNSON	505 FREDERICK M A&L	7937 565 WAKFD SWAIN PLACE GR OT	
12 15 50 JOHNSON	505 FREDERICK M A&L	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3	
12 15 50 JOHNSON	505 FREDERICK M A&L	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH	
12 15 50 JOHNSON	505 FREDERICK M A&L	7841 134 GROTH SEE RECORD	
12 15 50 JOHNSON	505 FREDERICK M A&L	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38	

10 14 51 JOHNSON	505 FREDERICK M A&L	8029 558 ARL KIMBALL RD FWLY PEARL ST MTSTIC ST MORT
12 15 50 JOHNSON	505 FREDERICK M A&L	9323 456 WATER HIGHLAND AVE PT LOT 9 PL B 258 P 25
12 15 50 JOHNSON	505 FREDERICK M A&L	7744 136 NEW LINWOOD AVE PROPOSED ST
12 15 50 JOHNSON	505 FREDERICK M A&L	7929 586 CAMB GRIORG ST LOT 55 PL B 42 P 20
12 15 50 JOHNSON	505 FREDERICK M A&L	7921 4 ARL WASHINGTON AVE
12 15 50 JOHNSON	505 FREDERICK M A&L	7937 565 WAKFD SWAIN PLACE GR OT
12 15 50 JOHNSON	505 FREDERICK M A&L	7931 134 ARL NURSE RD LOT 14 PL B 91 P 3
12 15 50 JOHNSON	505 FREDERICK M A&L	7625 240 SOM JUMINGTON RD FL 200 BK HERWITH
12 15 50 JOHNSON	505 FREDERICK M A&L	7841 134 GROTH SEE RECORD
12 15 50 JOHNSON	505 FREDERICK M A&L	7972 39 EVE GORDON ST LOT 155 PL B 253 P 38

The two strips are then injected, linking the roll

INJECTION FILING SYSTEM

Injection filer handles individual lines of index as strips linked into a roll. This roll of index can be microfilmed as the roll is rewound before a camera. Cost: \$1 per 100,000 lines. Time: 8 Minutes per 100,000 lines. The film is developed in the same equipment used in previous operations.

THIS MICROFILM CAN BE USED:

- Projected on microfilm Reader. Cost: \$1 per 100,000 lines
- Projected on microprint Reader. Cost: \$3 per 100,000 lines.
- Printed full size on paper by:
 - Xerography. Cost: \$70 per 100,000 lines.
 - Smoke printing (under development). Cost: \$3 per 100,000 lines.
 - Photostats. Cost: \$300 per 100,000 lines.



Note: See footnote on previous page.

Each instrument requires an average of 150 characters in the entry sheet. The Encabulator transposes this information to produce the required 400 characters for indexing as a fully automatic operation.

This photograph represents one day's output of an Encabulator—2,000 lines of entry—200,000 characters!

Prior to 1953 this amount of material was copied in handwriting five (5) times over in the following places:

Current year's index.....	200,000
Duplicate current year's index.....	200,000
Classified yearly index.....	200,000
Cards.....	200,000
10 Year consolidation.....	200,000

Handwritten characters per day.....	1,000,000
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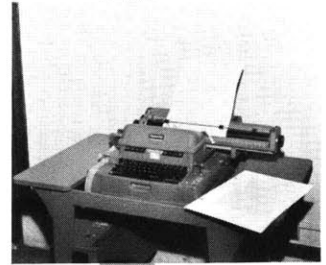
In the system being installed it will be automatically typed once from the by-product tape of the index strips to be reproduced photographically. The handwriting of 1,000,000 characters per day will be eliminated.



ADDITIONAL TECHNIQUES DEVELOPED FOR THE REGISTRY—

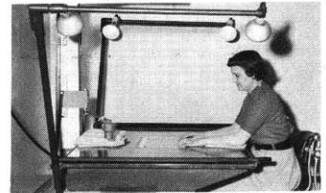
LAND COURT FORMS

Land court certificates have been redesigned to provide for accurate, automatic typing of thousands of owners duplicates annually.



PLANS PHOTOGRAPHICALLY REPRODUCED

Plans of land are recorded at the average rate of 10 per day. Much of the time of 12 draftsmen is spent redrawing these plans to scale for inclusion in record books. By microfilming these with their related instruments, the redrawing of old planbooks can be accelerated.



MICROLIBER

The Microliber is an experimental project in the planning stage. It would save \$70,000 annually if adopted.

AUTOMATIC COPIER

To improve service to examiners an automatic coin-operated copier has been planned. The examiner would place a book face down on the glass top and insert a coin to produce a dry print within 15 seconds.



WHAT THIS SYSTEM MEANS TO THE:

REGISTERS OF DEEDS A development project from which other Registers may benefit.

TITLE EXAMINERS Better indexes and records — increased volume.

TAXPAYERS Lower taxes.

EMPLOYEES Upgrading of jobs — better working conditions.

HOME BUYERS Fast, accurate title searching.

BANKS & REAL

ESTATE FIRMS Prompt, dependable title searching at lower cost.