Developments in the Planning of Main Library Buildings

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THE REQUIREMENTS for a main library building are determined by the nature and scope of the public library service to be performed. This, in turn, depends upon such factors as population served—its size, distribution and growth trends; educational level of the library's clientele and its future potential; geographic characteristics—location, topography, and natural and man-made barriers; other educational and cultural facilities available; and business, industrial or other economic activity. These elements help shape the objectives, scope, and organization of the service and thus influence the size and design of the main library and other facilities required to meet present and future needs. As stated in the ALA *Minimum Standards for Public Library Systems, 1966*, "Fundamentally, a library is not a building but a service organization. The pattern of service to be rendered in a specific community will determine the nature of its physical facilities; there is no standard building plan for public library operation."[1]

Continuing urbanization represents both an opportunity and a challenge for large public libraries. The changes that have taken place within the core cities in recent years have created new demands and necessitated modifications in programs which have often increased work loads even though the population may have declined. At the same time, the growing area population looks to the central library of the core city for specialized services and materials to supplement those available in their local libraries. In this connection, an observation made by Ralph Shaw over ten years ago still applies today:

> While it is possible and necessary to provide some of the services provided by libraries close to and as an integral part of each neighborhood,

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> and these services can not be provided in any other way, there are some intellectual levels of service that can not be provided in each of the neighborhood or regional library outlets and must, in fact, be provided by a central library in the core city which serves the larger area.
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> This means that, so far as can now be foreseen, the suburbs will continue to be dependent upon the core city for certain intellectual levels or qualities of service, whether they be in intellectual or financial matters, and that neither complete administrative consolidation nor complete administrative decentralization will necessarily solve these underlying problems.[2]

The concept of library systems has long been advocated by the American Library Association.[3] To be sure, libraries have always cooperated on an informal basis; however, during the past decade or so, public library organization structures and service patterns have been modified to meet new requirements. As John Frantz noted:

> The types of library system organization have normally followed the pattern of metropolitan government—federation of separate units, creation of a metropolitan county, city-county consolidation, creation of special-purpose or multi-purpose metropolitan districts, and the extension of functions by inter-governmental contract. Whatever the method, the goal has been to achieve more effective and more economical service. The motivation has been to increase the tax base, to obtain grants-in-aid, or to distribute costs more equitably.[4]

In any event, public libraries which once had only municipal responsibilities have become or are now becoming parts of county, metropolitan, or regional systems. It can be anticipated that this trend will continue and that the planning of new main library buildings will have to provide adequate facilities for this broadened concept of service.

As an aid in evaluating services and determining overall requirements, it has been customary for boards of trustees or other governing authorities to engage a specialist (this may be an individual with appropriate experience, a team of experts, or an organization) to make a general survey of library operations. Over the years, but particularly in the past decade, a great many analyses of this kind have been made. As might be expected, these analyses vary in merit, the value of the product depending upon the competence, experience, and thoroughness of the surveyor. An unusual example of such an investigation is *Library Response to Urban Change; A Study of the Chicago Public Library,* by Lowell Martin,[5] which received the Scarecrow Press Award in 1970. It goes without saying that reports of surveys frequently point up the need for larger main library quarters, and that is true in the case of the report on the Chicago Public Library. The *Master Plan for Library De-*

velopment in Dade County, Florida,[6] prepared by Nelson Associates in 1969, also recommended a new main library for Miami.

Sometimes a research project is specifically and exclusively concerned with main library requirements. *A Study of Central Library Facilities in the District of Columbia,*[7] prepared by Booz, Allen and Hamilton, serves as an illustration. More recently Arthur D. Little, Inc., in collaboration with John S. Bolles Associates, produced *The Urban Central Library; Development Alternatives for San Francisco.*[8] This is not just an analysis of the need for a new central library; a considerable part of the inquiry is devoted to market research and financing.

These are just a few examples of the broad spectrum of studies that have been undertaken during the past ten years. The need for such investigations is self-evident, but the increased number actually carried out has no doubt been due, at least in part, to the availability of federal funds through the Housing and Home Finance Agency, the U.S. Department of Housing and Urban Development, and the Library Services and Construction Act. At any rate, more often than not, the findings have had implications so far as main library building planning is concerned.

Important as such studies are in evaluating service, in determining appropriate goals, and in suggesting means to achieve them, they do not eliminate the need for a detailed written statement of program when the time comes to plan a new library or a major extension to an old one. In his "Survey of Library Buildings and Facilities," Donald Bean lists the following as some of the things which a good statement of program for a library building should attempt to describe:

1. The service which the library may be required to render in future years —say twenty years hence—both in extent and in nature.
2. The quantities of library materials that may be needed in order to render that service. This point includes not only books and periodicals but also all other library materials including such items as audiovisual materials, documents, maps, ephemeral materials, etc.
3. The future departmental organization of those library materials.
4. The future library staff required to render the needed service, in detail, department by department.
5. A detailed list of furniture and equipment that will be needed to carry out the future service.
6. The estimated square footage, department by department, complete and in detail, that will be required to house the materials and equipment.
7. The relationship of each area in respect to other areas, both horizontally and vertically.

8. Other aspects of the building design and structure which are likely to affect the cost of operation of the library or the effectiveness of its service or both.[9]

In short, just as the architect's plans are a blueprint for the builder, the written statement of program is, in effect, a blueprint of library requirements for the architect. The importance of the statement of program was exemplified by the late Mies van der Rohe, who designed the new central library of the District of Columbia Public Library. When Mies van der Rohe presented his preliminary plans and a one-eighth scale model of the new building to the Commission of Fine Arts on February 15, 1966, the chairman asked how so much had been accomplished in the short space of four months after the contract was signed. He replied that the statement of program was a major factor: "From it we gained a clear idea of what a library is and what is needed and translated it into architecture." As stated in *Local Public Library Administration:* "It is obvious that preparation of program statement is basic to the success of a library building of any size or complexity, be it a small branch or a large central library building serving a densely populated metropolitan area. Should the librarian fail to develop such a statement, the governing body must insist that one be prepared."[10]

The site for a main library is a major consideration in the planning process. The reason is that location is a vital factor in the use that will be made of the services and facilities offered. Although there are occasional exceptions, generally speaking the main library should be in or as close as possible to the heart of downtown retail shopping and office activity. Business enterprises generate traffic and attract potential library users. Inasmuch as there are certain fixed charges for operations no matter where the main library is located, it follows that the more services performed, the lower the unit cost per service rendered. Thus a good location helps to assure the best possible return on the tax dollars invested in the library building and program.

Admittedly this is not a novel or original idea. Thirty years ago Wheeler and Githens stated in *The American Public Library Building:*

> Library boards, appropriating bodies, real estate interests, city planning experts, and architects must realize that a public library building is first of all a public service plant and not a monument. The ideal site for a library building is where a large department store, a popular bank, or the busiest office building or drug store could be successfully located. It is vital to secure such a site.

> Convenience to users is as important for a library as for a great office building.[11]

The validity of this premise was again investigated by Wheeler in 1958, when he found that 90 percent of the librarians canvassed agreed that a main library "should be strategically located in the center of the major pedestrian shopping and office area, where busy stores would flourish. . . . It would be better to save on building cost than on the site cost."[12] The need to place the main library in the downtown retail shopping area was reaffirmed by Keith Doms in *Local Public Library Administration,* published by the International City Managers' Association in 1964.[13] This authority also cautions against the seemingly plausible views of those (usually not qualified to select a suitable library site) who advocate placing the main library in a park, a cultural or civic center, or some remote location.[14] In 1967 the University of Illinois Graduate School of Library Science published *A Reconsideration of the Strategic Location for Public Library Buildings,* the latest study by Wheeler on this subject, which reported the following conclusions:

1. The library's objective continues to be to reach the largest proportion of citizens with the best library materials and services, at the lowest unit cost.
2. The informational services of the library are becoming more and more important in proportion to its total services.
3. As 60 percent of the population is over 21, public libraries need more attention and promotion for their adult services; strategic library location, efficient plan arrangement and attractive design are major factors in reaching this objective.
4. Automobile use has increased markedly, 50 percent, from 1955 to 1966. So has the parking problem. The library has to pay attention to and help solve this problem. Some new libraries provide underground parking.
5. The movement of population is from the downtown city center to the suburbs. And the number and size of outlying shopping centers increase daily, so that the relative importance of downtown has diminished in the last decade.
6. On the other hand, several hundred cities, large and small, are in the midst of central business district renewal on a large scale, and this return to downtown promises to accelerate.
7. In any case, downtown continues to be the chief area for transacting most business, banking and office work. It still attracts the greatest number of people, and indications are that it will continue to do so in the foreseeable future.
8. Increasing provision is being made for downtown parking. Planners, real estate men and business leaders recognize that downtown parking problems can and must be solved.

9. The public library, to serve most people, should be where most people congregate. That continues to be downtown. "While the suburban shopping center development has continued unabated, the Central Business District still attracts multitudes of people, and there are more people *there than in any other single part of the city,*" says a city planning sociologist who has continuously studied and reported developments in this field for some years. . . .
10. The basic factors as stated in the foregoing paragraph lead to the inevitable conclusion that the main public library building in a city should be placed in, or kept in, or rebuilt in, the heart of the downtown business and office district.[15]

To be sure, the downtown areas of some cities have deteriorated, particularly where there have been no redevelopment programs at all, or where such programs were delayed or lacked adequate funding. Nevertheless, as stated in an article which appeared in *The Washington Post* on June 26, 1971:

> It would be wrong to count out these central cities. They are not dead. According to a survey recently completed in Cleveland, they are undergoing a steady change—an evolution from the old mercantile center to a financial center, from dwindling retail sales to a dynamic office center that is the corporate heart of an ever-expanding metropolis. Moreover, a move back to the city is predicted for those people who can afford to live wherever they wish.
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> The Cleveland survey was made by the Ostendorf-Morris Co., one of the largest and most reputable real estate firms in that city and whose retired chairman, Edgar L. Ostendorf, was president of the National Association of Real Estate Boards in 1939.[16]

The report notes that there is an occupancy rate of 98 percent for the 4.5 million square feet of office space built since 1958; the number of office workers in the central business district rose from 63,000 to 93,000 and will reach 100,000 by 1974; the payroll for the new workers will add $2.7 million to the city's annual income tax revenue; and the assessed valuation of the new properties "will produce annual property tax revenues of $4.2 million at current rates."[17]

Concern is sometimes expressed regarding the impact of computers on public library service and the location of main library buildings. One of the best statements in this connection was made recently by Lowell A. Martin in his Preface to *The Urban Central Library: Development Alternatives for San Francisco:*

> As to the library in the computer, there is no doubt that new technology will significantly alter future library operations. Records will be kept automatically; books and other materials will be handled in new operations

systems; catalogs will be produced from machine readable tapes; some kinds of information will be available on demand from data banks; and images will be communicated rapidly to other libraries and to individual users at a distance. Indeed these promising technological developments constitute one practical reason why a large city needs a functional central library building in order to be able to progress with the times.

But so far as the most imaginative planners can see, over the next half-century, central knowledge reservoirs will still be needed, as the origin of data going into classroom, office, laboratory, council room, and home. And at the personal level, direct access to a library or materials center will still be desirable, whether for the child reaching for his first book, the community leader getting background on schools or housing or employment, or the businessman seeking information on a new market. In particular will strategically-placed central and metropolitan libraries be needed, as the centers of networks that will reach to whole regions.[18]

In the light of experience and the virtual unanimity of expert opinion, the downtown retail shopping and office area remains the best location for a new main library, barring unusual circumstances in a given situation. It is of interest to note that most of the large main library buildings opened in recent years occupy such sites.

At one time, many public library buildings were poorly planned architectural delusions of grandeur. Instead of being designed to meet functional requirements, they seemed all too often to be monuments to pretentiousness. As a consequence they were space wasting and therefore costly to build; difficult to heat, light and maintain; expensive to staff; inefficient to operate; and, not infrequently, virtually impossible to enlarge. Perhaps the worst examples were the Romanesque buildings designed by H. H. Richardson.[19] But there were also others of a much later vintage. In happy contrast, there has been a marked improvement in public library design during the past ten to twenty years. Furthermore, most, though by no means all, new main library buildings and extensions added to old ones generally comply with accepted principles of library planning. As stated in ALA *Minimum Standards for Public Library Systems, 1966:* "A public library building should exemplify the spirit of service—library service. It should offer to the community a compelling invitation to enter, read, look, listen, and learn. The interior and exterior features should attain the functional efficiency and beauty found in the best architectural achievements."[20]

During the past decade it is evident that library design has been influenced by the architecture of other buildings. One recognized trend

has been "the so-called 'brutal' school of architecture—that is, buildings whose basic material is a natural or almost natural concrete aggregate and which are strong statements of masonry structure."[21] Yet, interestingly, this influence appears to be confined to middle-sized and smaller communities, and has not affected the design of new main libraries in the larger cities. For the most part urban libraries follow the more widely employed contemporary architectural patterns seen in commercial and some public buildings. Construction materials include not only granite, marble, limestone and other stones, brick, poured concrete, precast concrete, steel and glass, but aluminum (in solar screens and trim) and even epoxy panels. It should be noted that there is an evident increase in the use of glass. In several cases bronze glass is used which, apart from its aesthetic effect, reduces solar glare and heat.

The ALA standards stress the importance of placing the entrance at street level.[22] Although most new main libraries provide easy access, there are, regrettably, a few examples of retrogression. To the disadvantage of the handicapped and infirm and the inconvenience of others, it is necessary to use stairs to enter a number of relatively recent buildings. Occasionally this is due to circumstances seemingly beyond anyone's control. In some cases, however, it has been possible to alleviate the problem by ramps. At any rate, people with physical disabilities should not, in effect, be denied the use of the library. They need the services offered as much as anyone else. Lest this concern be dismissed as something affecting a small percentage of the population, it should be noted that the handicapped represent "twenty-two million people in the United States, a figure constantly increasing by the birth of 100,000 babies with crippling physical defects joined by hundreds of thousands maimed by traffic accidents, war, age, and other handicapping illnesses or accidents. More simply, 'approximately one out of seven people in our nation has a permanent physical disability.' If the library is to maintain its service principle, it cannot continue to ignore this large group which so desperately needs to be served."[23]

Incidentally, about 10 percent of the population is 65 or over. In this same general connection, it is surprising to note that few new main libraries have entrance doors that open automatically. Such doors are not only advantageous for the disabled, the aged, and the young, but are also a convenience for others, particularly when carrying books and parcels.

Occasionally an odd-shaped public library building appears on the horizon, in spite of all that experience has taught. Fortunately this does

not apply to those in the bigger cities. Of more than a score of large main buildings reviewed in connection with this report, all but three are oblong; of the three exceptions, one is square and the other two are L-shaped.

The importance of the open plan in designing public library interiors cannot be overemphasized. To quote the ALA standards again, "Fixed, load-bearing walls should be kept to a minimum, and stairways, elevators, booklifts, plumbing, and heating and air-conditioning ducts which penetrate the floors should be located, insofar as possible, to provide flexibility in building utilization and to allow building enlargement without excessive cost."[24] This permits the establishment of effective service and functional relationships and suitable traffic patterns, and enables a relatively small staff to supervise large areas, thus contributing to economical and efficient operation. Furthermore, the open plan is adaptable, making it possible to carry out modifications to meet changing requirements. This is of major concern when a library is organized on the subject divisional plan, as many medium-sized and all large libraries are, because subject areas grow at varying rates and advancing technology necessitates the accommodation of new machines and new media. By the same token, main libraries not arranged on the subject divisional plan can readily convert to that form of organization should it become desirable, provided the building is of a flexible design. As a matter of fact, the open plan is doubtless best for any growing library, regardless of its size or how it is organized.

In view of these considerations it is not surprising that virtually all main libraries of recent vintage are designed on the open (usually modular) plan. On the other hand, a few libraries do not have a minimum floor load capacity of 125 pounds per square foot. This, of course, is a deterrent to flexibility as it may inhibit necessary changes, particularly if they involve the rearrangement of double-faced bookcases or other heavy equipment.

Flexibility and other benefits are also sometimes diminished by mezzanines, as pointed out by William Jesse:

> In many cases, the only reason for having a mezzanine is a presumed aesthetic gain. Whether architects and librarians realize it or not, they are reverting to the cause of the problems of many years ago: creating fixed-function areas, making portions of their buildings relatively inflexible. Some librarians (and even some library building consultants) recommend mezzanines because of the economy they feel is involved. . . . A mezzanine involves the simple principle of crowding extra books on an intermediate partial floor. Actually, if the floor will take readers or books or other

> functions for the width of the mezzanine, it will take them for the width of the building. The mezzanine is simply a throwback to multitier stacks with off-height rooms adjacent to them. . . . Modular planning has demonstrated time and again that this is not only unnecessary but undesirable.[25]

It should be noted that mezzanines increase the cost of construction out of proportion to the space gained. Furthermore, the additional cubic footage required could raise operating costs for heating and air-conditioning. The aged and handicapped may be denied access to such areas because of difficulty in climbing stairs, unless an elevator or escalator is provided. Climbing stairs also imposes an additional burden on the staff. Finally, without elevator or booklift facilities, mezzanines create a problem in moving books up and down. In spite of these considerations, a number of new main libraries feature mezzanines.

A few medium-sized and large buildings have open stairways, even somewhat monumental ones. Admittedly, a well designed stairway can be aesthetically pleasing. Nevertheless, such an architectural feature has to be used with considerable discretion. For instance, if it is poorly placed it can interfere with the flow of traffic, reduce flexibility in arranging and rearranging service areas, and even create a number of administrative difficulties. Another kind of problem arises from code requirements. In one situation where an open stairway was approved over the librarian's objections, the library had to install a sprinkler system because the stairway was not enclosed. This would not otherwise have been necessary. Everything considered, there are decided advantages in placing required stairways in a building core or cores, together with elevators, booklifts, utility lines, plumbing, toilets, and heating and air-conditioning ducts.

The inherent flexibility of an otherwise open plan can also be adversely affected by a poorly placed auditorium, inside court, fountain, or other architectural feature, particularly if the construction is rigid and does not permit easy adaptation in the event circumstances should make a change necessary.

Another evident trend is the increased use of escalators. Six of the large main libraries built during the past decade have one or more of them. These, too, have to be carefully placed for the reasons previously noted and, at the same time, to permit easy supervision by the staff.

The need for adequate controls to maintain order and protect library property cannot be overemphasized. In most recent main libraries, the charging desk has been placed near the exit. Sometimes this is supplemented by a guard. In a few cases electronic controls have been in-

stalled. Emergency doors are usually equipped with alarms, though guards are sometimes stationed at such points. Generally speaking, public elevators, escalators, and stairs seem to be located so that they are easily supervised by the staff.

Traffic patterns are a very important consideration in the efficient operation of a public library. Readers should be able to proceed without backtracking from the entrance to the return desk, next to the information desk and the catalog, then to the public service areas on the main floor or to the elevator, escalator or stairs to the floors above. Furthermore, although corridors should be kept to a minimum, readers should be able to reach desired service points quickly and without confusion; there should be no traffic lanes through reading areas. It requires careful planning to establish the proper relationship of services and functions. The busiest public divisions should be on the main floor to reduce traffic to the upper levels. Furthermore, those likely to grow faster than others should be placed where future expansion is possible, as opposed to a confined space, such as a mezzanine, where the growth potential is limited. Generally speaking, the main libraries reviewed seemed to follow these principles, but there were one or two exceptions.

Most new main libraries are designed for either horizontal or vertical extensions. Unfortunately, a few are not. Whether due to a lack of foresight or funds, this imposes a decided limitation on the potential life of the building. It is particularly regrettable since the amount of money involved in providing for future expansion represents a very small percentage of the initial construction cost.

The lighting in most recent buildings seems to be excellent. But, again, there are exceptions, particularly in older buildings where foot-candles can be almost unbelievably low: 30 in some reading and open shelf areas, 15 in closed stacks, 5 to 10 in mechanical areas. In contrast, the tendency now is to provide a maintained light intensity of as much as 100 foot-candles in reading areas.

In planning interiors, architects and interior designers have employed such materials as glass, brick, stone, concrete, tile, metals, wood, cork, and vinyl to achieve impressive aesthetic effects. There has been an increase in the use of color and greater attention has been given to color coordination than was the case a decade ago. More and more libraries are using wall-to-wall carpeting, at least in areas designated for reference work and serious reading. This reduces noise and is relatively easy and inexpensive to maintain. Virtually all have one or more infor-

mal areas featuring lounge chairs, other casual furniture, and rugs. In recognition of the reader's desire for privacy and space to work, there are more carrels and individual study tables than libraries used to provide. There is also an awareness of the importance of audiovisual materials and, generally speaking, libraries provide a considerable amount of space for them and related equipment. On the other hand, not many provide cassettes as yet. Although several libraries are using data processing, at least for payroll and bookkeeping (usually a part of a city system), only a few have made provision for the later installation of information retrieval equipment. The potential significance of this technological development has long been recognized. This does not mean that libraries, books and other library materials will be supplanted by machines. As indicated in the foreword to the report of the National Advisory Commission on Libraries, "At a time of great technical virtuosity it is important to realize that in the predictable future new means of information storage and retrieval will not displace the book. Nor will they lessen the need for materials, buildings, or skilled staff. Instead they will extend and supplement what we now have, and our investments during the next decade must take equal account of the enduring purposes of libraries and the diverse emergent means of strengthening them."[26]

Libraries generally could benefit from a reexamination of their materials-handling systems, particularly with respect to acquisitions, processing, and rebinding. In some cases there is a need for improvement in the way books and other materials are obtained from and returned to the closed stacks.

Reverting to the needs of the handicapped, it is surprising to note that several recent main libraries do not provide the special toilet facilities needed by such individuals. This should be standard operating procedure in library planning.

So far my comments have covered a broad range of new main libraries in small, medium-sized, and large cities. In some cases they are based upon participation in the planning process; in others, upon visits, review of plans, photographs and descriptions furnished by librarians and architects or available in library and other literature. In addition, in preparing this article, a questionnaire was sent to the directors of all libraries in cities with a population of 250,000 or more. The response to this inquiry was very gratifying; however, it is regretted that answers were not received regarding two of the largest recent building projects, namely the Boston and Detroit Public Libraries. Results of the ques-

tionnaire appear in an appendix to the article. Information obtained from a summary of the questionnaire is presented in two categories: (1) entirely new main libraries, and (2) large extensions to old buildings. It will be seen that most of the libraries were opened during the past ten years, but a few older buildings have been included because it was felt that they would still be of interest to anyone currently engaged in planning a new main library.

In addition to being very cooperative in completing the detailed questionnaire, the directors concerned were frank and helpful in evaluating their buildings, noting problems that had come up and pitfalls to be avoided. In some cases the original building proved to be too small. This serves to emphasize the need to plan for future horizontal or vertical extension. As noted previously, the most recent libraries are expansible. It is the exceptions that cause future problems. As one director said of his main library, "There is no provision to expand the building either laterally or vertically. This was shortsighted." Another library, faced with the need to economize in construction, saved $100,000 by not pouring another concrete floor previously included in the plan. Now it is paying the penalty in not being able to carry out a badly needed rearrangement of services. In another instance it was found that the space allocated for one function became inadequate when that activity was expanded. This has created a problem which may intensify, particularly since this building cannot be expanded, either. Still another library found that the receiving and preparations area should have been larger; apparently there is no way to relieve this situation.

One director is thinking in terms of moving all technical processes and some offices out of the central library to another location in the city and converting the space these operations presently occupy to public reading rooms and open-shelf areas. This can, of course, be done; in fact, it has been done many times. But after operating the District of Columbia Public Library on that basis for twenty-three years, the author would not advise doing it except as a last resort. The previously mentioned Booz, Allen and Hamilton study noted the "great losses of staff time, expensive transportation requirements and many operational difficulties" resulting from this arrangement.[27] Although lack of space may necessitate such a move, it is not recommended as an approach to planning a new building. It would be far better to exercise "air rights" and build an additional floor, partial floor or penthouse to house the administrative headquarters and the technical processes department. It might well cost less to do this than to acquire a site and build a sepa-

rate building for these activities. In any event, the reduced operating cost and improved public service would certainly be ample justification.

In at least one case overall planning for future expansion was impossible because of local circumstances. The resultant piecemeal approach to expansion involved a great deal of extra work. As the director put it: "At each stage, some changes in earlier plans are made, and some functions have been moved more than once . . . the uncertainty at each stage as to what would be the next addition has required much replanning and reshifting of functions." This is obviously something to be avoided, if at all possible.

Careful planning and coordination with the architect are of paramount importance, as the following observations indicate.

"I feel most strongly about the things over which the library administration had little control, namely, the two main entrances and the lack of reading room facilities on a street level entrance."

"I would give greater consideration to control—both public and staff entrances and exits, elevators, and circulation desks. I believe we would have better control if our public elevators were in a bank rather than scattered and if they were located in an entrance lobby which permitted access to the various floors without the necessity of entering reading room areas just to take an elevator to another floor. Public elevators would be better programmed not to go to any closed service areas, and elevators designed to reach closed service areas located outside of public service areas."

"The plan leaves the entrance and exit patterns too open. They should be channeled more stringently and clearer visual signals should be provided."

"Revise the layout of entrance where patrons enter and leave the library for better control of book check-out procedure."

"We had hoped to avoid escape routes for the public but with so many exit signs and doors locked from without, people manage to exit the library through other than regular routes."

"The location of our public toilets has been a continuous problem. We would recommend that public toilets be placed on the first floor with maximum control. Separate toilet facilities should also be made for those patrons using the auditorium and exhibit areas."

"We have an auditorium in the center of the second floor. . . . True, this is a boon in many ways. But it is also a very active room for varied bookings and we find the spillout of the groups in the foyer a true nui-

sance. I would prefer this auditorium to be more by itself with access less involved with our daily public and work routines."

"We would add a small catering kitchen and back stage facilities adjacent to the auditorium and lecture room."

"While the visual effect is nice I wouldn't use so much glass. The color of the tinted glass that is used is no longer manufactured and the cost of replacement starts at $300 per pane and goes up depending upon which level of the building the replacement is necessary."

"An improvement would be less use of exterior window walls to reduce some of the sun problems we have encountered."

"Place public rest rooms on main floor instead of on the mezzanine as done presently."

"Use automatic front doors."

"Install a better vertical book transportation system. Book lifts are not too satisfactory."

"The library was built just before the copying revolution began, and we do not have sufficient space for the number of coin-operated machines needed by the public. Also, with the great increase in the use of microforms, the library is not set up to provide areas for various machines and storage facilities needed."

"Another quirk in our building is the fact that the stairwell is not accessible from the second level. Obviously this creates confusion and no little inconvenience. We do, of course, have elevators but the stairwell should nevertheless be accessible on all levels."

"Technical processing would be better located on ground floor near shipping and receiving (now it is on the fourth floor with access by freight elevator)."

"Do not use leaf-light. It is beautiful and effective, but a pain in the neck to replace lamps and clean leaf."

"Plan more office space than we have in our present building. Office and work space in the departments is not sufficient; we do not have enough space for supervisors with system-wide responsibilities whose offices would be reasonably located in the central building."

"The garage space is inadequate and access is by a ramp that is too steep to negotiate comfortably. Trucks particularly have a difficult time."

"The parking and yard area for route trucks and bookmobile operation is insufficient."

"I would also desire flower beds in place of a fountain. The latter is nice but it is most costly to operate and floodlight."

"I would think, too, that, as lovely as it is to look like a June-bug at night, our entire building could have been flood-lighted at less cost than the perimeter lights which line the entire interior edge of the building—very expensive to install and very expensive to run. But I must admit it gives a very nice night effect."

One director noted, as "another afterthought," the need for acoustical or other treatment of one of the administrative offices because voices carried over into public service areas. This manifestly is something to be avoided, particularly where personnel matters are discussed.

Librarians whose main libraries were designed on the open plan have been able to meet changing requirements with a minimum of expense or disruption of service as attested to by the following remarks.

"The building is quite flexible and various minor corrections, improvements, and modifications occur from time to time."

"We have had to enlarge the size of three of the work rooms of the public service departments. The work room walls are made of free-standing shelving and this move was handled by our maintenance staff. Part of our overcrowded work room problem was due to insufficient provision for the shelving of unbound periodicals in public areas."

"We have also enlarged a caged area in the stacks which holds the overflow from the Rare Book Room."

"The metal office partitions used throughout this building have proven to be very flexible in the many changes to various office areas. The partition designs are such that our in-home people can make these changes quickly and economically."

"In years to come if future uses demand modifications of layout, changes can be made at minimum expense, since all interior walls, except in the core area, are easily removed and relocated."

"The central library is a flexible building. It is being used now essentially as it was when it opened in 1954; however, the building is quite capable of major alterations at a minimum of expense."

"The interior walls of the central library are put together with steel studs and plaster and have a permanent appearance, although they can be easily taken down."

Several years ago, William H. Jesse observed: "The most widely experienced disappointments in new library buildings today come from engineering failures." This is particularly serious with respect to "the heating, ventilating, air conditioning, and humidity control

equipment."[25] Judging by the experience of the directors of several new main libraries, this statement still has validity:

"Our new Main Library was designed . . . with the emphasis on function and simplicity. There is one area, however, that would be changed if the plans were to be redone. Unfortunately only one 375-ton chilled water compressor was used for the entire building. When this goes out we have no air-conditioning. In the past two years the main driving motor has failed causing a three week shut down on each occasion. Fortunately these are not unduly expensive for us for we do have full maintenance contracts and the contractor in turn carries insurance for such major breakdowns."

"The situation is further complicated by even minor problems causing shut downs of a half day to two or three days. We asked the architect and engineer why there were not two or even three small units used and the answer was cost. According to the experts the one large unit is about $40,000 less than two small units. Personally I would attempt to insist on having two and preferably three small units in construction of this type. With three units one can be completely shut down leaving the other two to do a reasonably good job of carrying the building."

"About the building. Humidity was missed. We have since had it installed for $23,600. We also had to correct ceiling lighting over the stacks on the first floor. This cost $14,000."

"We have never liked the lighting in our microfilm areas and have recently consolidated all of our microform reading equipment in a special room where the lighting can be better controlled."

"The outer doors to the building which have motorized opening and closing devices have required much more maintenance than older model doors."

"A dual air-conditioning system (two smaller units rather than one large one is needed). When system is down for repair or cleaning, the building is untenable."

"Better access to air-conditioning ducts, pneumatic tubes, etc., is necessary. They can be a real problem to repair."

"We have had service problems with our escalators but here the fault was with the bidding procedure and not the engineering advice."

"The stacks do seem inaccessible and we have not been able to overcome the problem of poor communications between them and the public departments."

"The library is situated in the middle of a highrise apartment area

and when certain weather conditions exist some of the contaminants from incinerators and stack emission are drawn into the building causing discomfort to the staff. This problem is currently being reviewed by the Department of Public Works."

The following comments regarding equipment and related matters are also of interest.

"Provisions should be made for additional means of getting supplies to lower level supply rooms, i.e., chute in addition to freight elevator."

"I would give great thought to omitting an escalator. The possibilities for accidents seem so much greater, many people are not sure-footed enough to use them and they frequently must be shut down for cleaning, adjustment, etc. Children, in particular, are attracted to use them improperly."

"Our pneumatic tube system which is used for sending book requests to the stack areas is satisfactory but is probably too sophisticated for our requirements. It can do a lot of things that we will never require it to do and, because of its complexity, is subject to more frequent breakdown than a less complex system."

"The continuous conveyor to all levels was a waste of money, it isn't used."

"We should have carpeted throughout instead of partial carpeting which was installed."

"The sign on the front of the building has been replaced by a sign with larger letters visible from a greater distance."

"If possible more enclosed individual study carrels should have been installed."

"Provision for electronic book detection system at exits is needed."

It is the opinion of the author that the new central library building for the District of Columbia Public Library incorporates a number of principles of good planning discussed in this article. Named the Martin Luther King Memorial Library by the Board of Library Trustees, it is the only public library designed by Mies van der Rohe and the only example of his art in the nation's Capital. It is situated in the heart of the downtown retail shopping and office area where it benefits from the traffic generated by commercial and governmental activity and is convenient to the subway now under construction. Occupying almost an entire city block, with underground parking for 100 cars, it contains seven levels: two full levels and a partial mechanical level below

ground and four levels above, with provision for a fifth floor to be added above ground when circumstances make this necessary. The building is oblong in shape and designed on the open, modular plan, with thirty-foot bays. It is constructed of black steel and glass. Cost of the building was $16,945,614 for the site, plans, construction, and equipment. The design of the building permits maximum use of prime space for public service and makes it possible to place non-public functions in less valuable areas. The library is designed around four cores which house stairways; public, staff and service elevators; book conveyors; pneumatic tubes; toilet facilities; and ducts for heating and air conditioning, electrical and telephone wiring, and plumbing. The pneumatic tubes connect all public and non-public service areas and administrative offices.

In the planning of this building there was extraordinary coordination and cooperation between the architect and the librarian, not only in determining desirable service and functional relationships, but also in developing details that would affect all aspects of day-to-day operations. In evaluating the building and the service plan, Benjamin Forgey wrote, "A . . . measure of the structure is the way it performs its function. The awesomely rationalized plan of the new central library probably will develop some remarkable kinks. Nevertheless, I think it is safe to say that it is so imaginative that it will be studied and adapted for years to come by librarians and architects alike."[28]

These comments would indicate that building a large main library requires both skill and planning. If skill and planning are employed, the result should be a facility which can effectively serve a community for many years. If the principles discussed here, which are the results of the experiences and thinking of many who have been involved in the building of main libraries in recent years, are incorporated, excellence in public service and efficiency in operations should ensue. Failure to incorporate good building principles in a main library may, at the worst invite disaster, and, at the best result in wasted money.

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APPENDIX A

Comparison of Recent Large Main Library New Buildings

Library	Akron Public Library	Buffalo and Erie County Public Library	Public Library of Cincinnati and Hamilton County	Dayton and Montgomery County Public Library
Director	John H. Rebenack	Joseph B. Rounds	James R. Hunt	William Chait
City Population				
1960 census	290,351	532,759	502,550	262,332
1970 census	275,425	462,768	452,524	243,601
Population of Metropolitan or Other Areas Served				
1960 census	112,617	1,064,688 (co.)	864,121 (co.)	527,080 (co.)
1970 census	156,486	1,113,491 (co.)	924,018 (co.)	606,148 (co.)
Main Library Site				
Dimensions	61,254 sq. ft.	100,000 sq. ft.	140′×290′	320′×180′ (approx.)
Proximity to downtown area	1 blk.	center of retail shopping area	2 blks.	2 blks.
Proximity to other traffic generators	adt. to downtown redevelop. area	——	——	major E-W & N-S city roads
Proximity to public transportation	bus stop on lib. site	center of several bus routes	bus stop at door	on E-W bus stop; N-S 2 blks. away
Readers' parking	none	none	none	none
Controlled parking	——	——	——	——
Is this parking adequate?	——	——	——	——
Public Parking	1 blk.; 3 lots and garage	3 areas within 1 blk. bus terminal & parking ramp planned 2 blks. away	across the street	1 blk.
Is this adequate?	yes	——	yes	yes, but expensive
New Building				
Date opened	3/27/69	3/63 & 9/64	1955	3/26/62
Total gross sq. ft.	148,300	402,000	175,000	126,700
Floors below ground	2@27,000 sq. ft.	boiler rm. only	2 stack levels	2@31,500 sq. ft.
Floors above ground	3@27,000 sq. ft. 1@13,000 sq. ft.	5 (incl. 2 stacks & penthouse for air-cond.)	5 (incl. stack levels)	2@31,500 sq. ft.
Site cost	$1,407,000	$989,973	$1,250,000	donated by city
Construction cost	$3,150,000	$9,301,615	$3,327,161	$1,750,000 (incl. demolition of old bldg. & landscaping)
Equipment cost	$528,000	$395,351	$168,955	$195,000
Other costs (incl. fees)	——	$651,604	——	$120,000

Book capacity	800,000	2,072,000	1,650,000	750,000
Readers' seats	445	830	468	468 (excluding meeting rm.)
Air-conditioned	yes	yes	yes	yes
Architect	Tuchman, Canute	Kideney & Assocs.; Harbach & Clark	Woodie Garber & Assocs.; Hannaford & Sons	Pretzinger & Pretzinger
Lib. Bldg. Consultant	Robert H. Rohlf	Ralph Ulveling & Charles Mohrhardt	Carl Vitz & Ernest I. Miller	William Chait
Interior Planner	Luke Lietzke	Designs for Health and Education, Inc.	Woodie Garber & Assocs.	Edna Voigt
Exterior Features				
Shape	oblong	oblong	oblong	oblong
Arch. style	contemporary	contemporary	contemporary	contemporary
Construction	sand-blasted, brick, concrete, & glass	stone & steel	brick, steel, & glass	poured concrete & glass
Exterior sign	lighted	indirect lighting	lighted letters over entrance	lighted above 1st story
Windows on 1st floor, so passers-by can look in	tinted	yes, from distance	yes	yes, gray-tinted
Display windows?	no	no	no	no
Outdoor reading area	no	no	yes, garden	yes (seldom used)
Drive-up book return	yes	no	yes	yes (heavily-used)
Book drop	4	2	1	2
Near entrance	2	yes	yes	yes
Near parking	2	no	no	near drive
Sidewalk level entrance	yes	no	yes	front yes, 1-step at rear
Automatic entrance doors	no	motorized, reacts to push (unsatisfactory)	no	no
Loading dock	yes	yes	yes	no (not needed)
Dock leveler	no	no	no	no
Parking garage for:				
Bookmobiles	3, at main lib.	4	no	no—another location
Administrative cars	no	no	no	1
Staff cars	no	no	no	no
Trucks	2	4	2 (at loading dock)	3
Is garage part of building?	no, at a branch	yes	yes	yes
Parking space available:				
For staff cars	no	16	14	14
For other vehicles	no	no	no	no
Provision made to extend bldg.	no	vertically	horizontally	horizontally
How many sq. ft.?	—	80,000	—	—
How many floors?	—	1	—	as many as needed
Sq. ft. per floor	—	—	—	10,000–15,000

APPENDIX A—(*Continued*)

Library	Akron Public Library	Buffalo and Erie County Public Library	Public Library of Cincinnati and Hamilton County	Dayton and Montgomery County Public Library
Interior Features				
Open plan	yes	yes	yes	yes
Dis. between cols.	50′	22½′	21′×27′	24′
Controls				
Entrance & exit	guards at both entrances	guards & charging desks at both entrances	——	Sentronic with turnstiles
Circulation desk	check-out desk at each entrance	——	——	——
Other	——	alarm on rear emergency exit	——	——
Floor load capacity, lbs. per sq. ft.	125–150	——	120 on 1st 3 floors, 240 on stacks	125–150
Floor Covering	carpet & tile (rubber, quarry & ceramic)	carpet, rubber tile, & terrazzo	asbestos tile in stacks, cork on pub. flrs.	carpet in lounge and dir. office & board room; vinyl tile on 2 flrs. above ground; asbestos/vinyl tile on 2 flrs. below ground
Walls	brick; dry wall vinyl covered	marble, walnut, plaster, & metal	——	cement block & plaster
Floor to Ceiling Heights	10′ & 12′	14′	14′ 1st floor; 12′ 2d; 10′ 3rd	9′ to 13′
Ceilings	mineral-type ceiling tile	plastic grids, underfloor slabs sprayed with mineral fiber in pub. areas; metal pan in non-pub. areas	——	metal pan
Mechanical Lifts, etc.				
Public elevators	1 automatic	1	2	2
Staff elevators	1	no	1	no
Service elevators	1	1	1	2
Escalators	2	1	no	no
Book lifts	——	7	——	3
Conveyors	1 Lamson Trayveyor	no	1 roller, 1 mech.	no
Where used	stacks to all floors	——	main floors to stacks	——
Other Mechanical Devices				
Communications				
Telephone intercom	yes	direct dialing to all phones in bldg. & outside calls	1	yes
Conference hookup	yes	no	no	no

Other intercom systems	——	——	——	——
Telephone jacks	——	——	——	——
Public address system	——	throughout bldg., closing, emergencies & staff announcements	2: music to aud., garden, rare book rm., children's rm.	switchboard to any part of bldg. & outdoor reading area; also music
Other loudspeaker systems:	——	aud.	——	aud., drive-in window
Teletypewriter	no	mostly interlib. loan	no	no
Telautograph	no	no	no	no
Facsimile transmission	no	had one bnt was failure	no	no
Pneumatic tubes	airmatic (ticket tube); all divs., tech. proc. & stacks	from all pub. depts. to stacks, etc.	call slip to page stations	between pub. serv. desks and stacks for slips
Other Mechanical Devices				
Signal Systems				
Exits	——	alarm on rear door	yes	yes
Elevators	yes	alarm	no	yes, & phones
Burglar alarms	no	no	rare book dept.	ADT
Fire alarms	yes	yes (throughout bldg.)	no	on pub. address system & in different parts of bldg.
Other	——	——	chimes	——
Other Mechanical Devices				
TV Control	no	no	no	being considered but appears too expensive
Using or Planning to Use Data				
Processing Equipment	yes (Burroughs)	no	yes (IBM)	yes
Bookkeeping and accounting	yes	no	yes	yes
Payroll	yes	county uses EDP	yes	yes
Personnel records	no	no	no	yes
Acquisition & ordering	no	awaiting ANYLTS	yes	yes
Cataloging	no	awaiting ANYLTS	no	yes
Circulation	no	no	yes	yes
Charging	no	no	yes	yes
Overdues	no	no	yes	yes
Information storage & retrieval	no	no	no	no
Other	no	no	no	——
Catalogs				
Card	yes	yes	yes	yes
Book	no	no	no	no
Other	no	several departmental	no	——
Charging System	Bookamatic	Recordak	Recordak	Recordak

APPENDIX A—(*Continued*)

Library	Akron Public Library	Buffalo and Erie County Public Library	Public Library of Cincinnati and Hamilton County	Dayton and Montgomery County Public Library
Public Areas				
Public study rooms	no	8 carrels	no	no
Multi-purpose room	3,400 sq. ft.	and.	1,400 sq. ft.	1,500 sq. ft.
Seating capacity	182	324	117	150
Chairs	fixed	fixed	movable	movable
Stage	fixed	fixed	fixed	fixed
Projection booth	yes	yes	yes	yes
Room dividers	no	no	folding	no
Loud speaker system	yes	yes	yes	yes
Earphones for hard of hearing	no	no	no	no
Kitchen facilities	yes	no	no	yes
Conference rooms	4	3	1	4
Seating capacity	12, 15, 20, 20	50	20	20, 40, 35, 12
Emergency room	no	yes	yes	no
Public toilet locations	2d & 3d fls.	1st & 2d fls.	2d fl.	1st & 2d fl. lobbies; 2d fl. children's room
Facilities for handicapped	no	no	no	no
Eating facilities				
Staff	cafeteria	coin-operated canteen	coin-operated canteen; 3 kitchenettes	coin-operated canteen; kitchen & dining area
Public	no	no	no	no
Checking facilities	coin- or token-operated lockers; cloakroom	coin- or token-operated lockers; cloakroom	cloakroom	coin- or token-operated lockers

APPENDIX A—(*Continued*)

Library	District of Columbia Public Library	Kansas City (Mo.) Public Library	Minneapolis Public Library	Public Library of Nashville and Davidson County
Director	Joe Y. Lee, acting director	Stephen S. Kirk	Ervin J. Gaines	David Marshall Stewart
City Population				
1960 census	763,956*	475,539	482,872	——
1970 census	756,510*	507,087	434,400	——
Population of Metropolitan or Other Areas Served				
1960 census	——*	——	1,500,000 (approx.)	399,743 (co.)
1970 census	——*	——	1,800,000 (approx.)	447,877 (co.)
Main Library Site				
Dimensions	375′×204′	105,000 sq. ft.	365.65′ & 284′×330.39′ & 340.73′	130′×250′
Proximity to downtown area	in heart of downtown retail shopping & off. center, on 2d busiest st.	4 blks.	on main retail shopping st.	1 blk.
Proximity to other traffic generators	across st. from National Portrait Gallery	——	——	all major dept. stores within 1 to 3 blks.
Proximity to public transportation	on bus lines; subway under constr. with stop across st. from lib. entrance	on E-W busline to downtown area; 1 blk. from S-E expressway	bus routes on all sides	1 blk. from bus transfer
Readers' parking	100	——	28	metered st. parking plus small metered lot
Controlled parking	dispenser issues ticket with time on it; lib. authenticates it; attendant checks ticket when reader leaves	attendant	meter	meter
Is this adequate?	not tested; bldg. not yet opened	——	no	no
Public parking	nearest ½ blk. away; numerous lots & garages close by	commercial parking across from bldg.	across st. on 3 sides	1 blk.
Is this adequate?	no experience as yet	yes	yes	no
New Building				
Date opened	not yet determined	7/60	1/30/61	1/16/66
Total gross sq. ft.	413,700	165,000 occupied by lib.	303,441	70,000

* Also serves free of charge those who live, work, or go to school in the District of Columbia; serves, for an annual fee set by the Board of Library Trustees, those living in adjacent counties who do not work or go to school in the District of Columbia.

APPENDIX A—(*Continued*)

Library	District of Columbia Public Library	Kansas City (Mo.) Public Library	Minneapolis Public Library	Public Library of Nashville and Davidson County
Floors below ground	A level: 73,800 sq. ft. B level: 55,600 sq. ft. mech. level: 32,100 sq. ft.	2 fls. below ground 2 fls. in base.	subbase.: 42,041 sq. ft. base.: 9,752 sq. ft. mezz.: 32,929 sq. ft.	1@10,000 sq. ft.
Floors above ground	1@48,800 sq. ft. 2, 3, & 4@65,800 sq. ft. ea. pent.: 6,000 sq. ft.	3 fls. in tower	4@42,041 sq. ft. pent.: 10,980 sq. ft. arcade: 5,527 sq. ft. aud., museum & planetar.: 34,048 sq. ft. (on 2 fls. & wing)	3@20,000 sq. ft.
Site cost	$3,322,000**	$2,456,000	$1,564,998	$150,000 (new site) plus previous site
Construction cost	$12,000,000**	$8,148,000	$4,394,224	$1,564,304 (incl. built-in equip.)
Equipment cost	$823,614**	——	$1,126,876	$126,000
Other costs (incl. fees)	$800,000** (const. serv.)	$5,692,000	——	$94,000 arch. $10,000 consult.
Book capacity	1,500,000 (plus approx. 1,000,000 more when the bldg. is expanded)	——	1,600,000	480,000
Readers' seats	900 (not incl. meeting rooms)	——	800	300
Air-conditioned	yes	yes	yes	yes
Architect	Mies van der Rohe	Edward W. Tanner & Assocs.	Lang & Raugland, Inc. McEnary & Krafft	Taylor & Crabtree, Inc.
Library Building Consultant	Harry N. Peterson, former director	Richard B. Sealock, former director	none	Library Management & Building Consultants, Inc.
Interior Planner	Off. of Mies van der Rohe	——	none	Taylor & Crabtree, Inc.
Exterior Features				
Shape	oblong	oblong	oblong	oblong
Architectural style	modern	contemporary	modern	contemporary
Construction	steel & glass	limestone, glass, aluminum panels, & brick retaining walls	reinforced concrete with anodyzed aluminum trim	marble, steel & glass

** Appropriated, does not incl. LSCA funds.

Exterior sign	lighted, approx. 10′ above sidewalk	no	above eye level; flood lights	on bldg. above eye level, indirect lighting
Windows on 1st floor so passers-by can look in	yes	yes (gray-tinted)	yes	yes
Display windows	no	2 exterior display boxes	10 in arcade	1 children's dept.
Outdoor reading area	no	no	no	no
Drive-up book return	no	no	yes	yes
Book drop	1	1	no	2: front & drive-in in rear
Near entrance	yes	yes	——	yes
Near parking	no	——	——	yes
Sidewalk level entrance	yes	no (3 steps)	yes	yes
Automatic entrance doors	yes (treadle type)	no	no	no
Loading dock	yes	yes	yes	no
Dock leveler	1, with provision for 1 more	no	no	no
Parking garage for:				
Bookmobiles	in large bays in loading dock	no	no, parked at a branch	no
Administrative cars	a few	yes	a few	yes
Staff cars	a few	30	for 2 staff using their cars in their work	30 approx.
Trucks	in large bays in loading dock	1	no	1 (small)
Is garage part of building?	yes	yes	yes (in base.)	yes
Parking space available:				
For staff cars	no	——	not in bldg.	no
For other vehicles	no	——	not in bldg.	no
Provision made to extend building	vertically	yes	no	yes
How many sq. ft.?	65,800	——	——	80,000
How many floors?	1	——	——	4
Sq. ft. per floor	65,800	——	——	20,000
Interior features				
Open plan	yes	yes	yes	yes
Distance between columns	30′	approx. 25′	22.5′	30′
Controls				
Entrance & exit	guard stationed at exit	yes	"tattle-tape"	1
Circulation desk	——	——	"tattle-tape"	at exit
Other	guards patrol regularly	——	——	——
Floor load capacity, lbs. per sq. ft.	150	——	125–150	125–150
Floor Covering	carpeting; asbestos/vinyl tile; ceramic tile: toilet rooms & janitor's closets; granite: sidewalks, vestibule & lobby	carpeting & vinyl tile	carpeting: dir.'s off., board rm., athenaeum & county space on 3rd & 4th fls.; rubber tile in pub. areas & stacks on 3rd fl.; asbestos/vinyl, stack areas below grade	some carpeting; Tuflex, rubber products; vinyl tile

APPENDIX A—(*Continued*)

Library	District of Columbia Public Library	Kansas City (Mo.) Public Library	Minneapolis Public Library	Public Library of Nashville and Davidson County
Walls	brick, plaster & painted concrete block	plaster	glazed tile; halls below grade; teak paneling: board rm. dir.'s off.; cherry paneling: athenaeum; interior outside walls in pub. area, enameled sandwich panel (insul.) plaster, painted "guard" vinyl wall cov.	plaster
Floor to Ceiling Heights	11′	25′ & 8′	13′ 1st fl.; 9′ others	18′ lobby & reading rms. 10′ elsewhere
Ceilings	Soundlock Corp. Metal Pan Lift-out System; plaster in toilets & kitchens	acoustical	Acousteel (Celotex Corp.); acoustic plaster, aud. & circ. area; fiber tile, base. areas	metal acoustical tiles
Mechanical Lifts, etc.				
Public elevators	3 (with provisions for 2 more)	1 (for pub. & staff)	1	1
Staff elevators	4	(see above)	2	no
Service elevators	2	1	1	1
Escalators	no	no	1	no
Book lifts	4	——	yes (conveyers)	1 dumb-waiter
Conveyors	5	1 tube	mechanized	no
Where used	mechanical belt: 1. from return desk to sorting desk in circ. rm. 2. from book drop to sorting desk in circ. rm. roller: 3. from sorting desk in circ. rm. to shipping rm. 4. in schools div. 5. in tech. proc.	sorting room	on ea. side of bldg; follow workroom areas; interchange on 3rd fl.; for transporting materials on ea. fl. from base. to 4th fl.	——
Other Mechanical Devices				
Communications				
Telephone intercom	yes	——	house system independent of pub. telephone system and	yes

			Northwestern Bell System	
Conference hookup	no	—	yes	yes
Other intercom systems	telephone intercom betw. pub. serv. desks & offs.; within certain off. areas; betw. offs.	—	no	no
Telephone jacks	bookstacks in pub. serv. areas; card catalog cases; map cases	—	in card catalog cases (pub.)	no
Public address system	paging system used to announce closing & in emergencies; microphones in guards' off., telephone switchboard and dir.'s off.	—	announcements, paging staff or pub., music, FM radio, tape deck radio & turntable	closing, announcements, etc.
Other loudspeaker systems	—	—	aud., planetar., meeting rms.	no
Teletypewriter	no	main lib. & Plaza Branch Lib.	no	2: music & film for news for radio sta.; tech. info. center, sending & receiving info. & interlib. loans
Telautograph	no	—	no	ref.—to request bound periodicals stored on ground fl.
Facsimile transmission	no	—	Dex I for trial period; transmit info. to other holders of Dex I	no
Pneumatic tubes	5″×8″ stations in all 4 quadrants of the 4 upper fls. & the 1st base. level; in closed stacks off.; registration off.; at registration desk & children's desk	—	betw. depts. & stack areas to request materials from stacks	no
Other Mechanical Devices				
Signal Systems				
Exits	exit doors may be placed "on security" at control panel in guards' rm.; if door is then opened it activates visual indicator & buzzer at control panel & sounds bell at exit door	—	garage door in operation	yes
Elevators	call button on ea. car sounds alarm bell in guards' rm.; annunciator panel indicates car involved; car automatically brought to 3rd fl. & held with doors open until reactivated by switch	yes	yes	yes

APPENDIX A—(*Continued*)

Library	District of Columbia Public Library	Kansas City (Mo.) Public Library	Minneapolis Public Library	Public Library of Nashville and Davidson County
Burglar alarms	no	——	no	no
Fire alarms	as required by local code; 6–8 pull boxes/fl.	yes	yes	yes
Other	Pneumatic tube dumb-waiter signal system to alert subj. divs. & certain offs. of dispatch of a carrier to a nearby sta.; light & gong located on ceiling	page	conveyor system, to alert dept. material on the way; central master clock system; Simplex time recorder	no
Other Mechanical Devices				
TV Control	no	——	no	no
Using or Planning to Use Data Processing Equipment	now under investigation	——	Yes (IBM System 3)	possibly
Bookkeeping & accounting	done by city	no	on book orders	——
Payroll	done by city	——	computer at city hall	now in use
Personnel records	——	——	some on computer at city hall	now in use
Acquisition & ordering	probably start with this area	——	yes	——
Cataloging	——	——	no	possibly
Circulation	——	——	no	——
Charging	——	——	no	——
Overdues	——	——	yes	——
Information storage & retrieval	——	——	no	——
Other	——	——	newspaper index, periodical holdings index, book catalog for branches	——
Catalogs				
Card	yes	yes	yes	yes
Book	no	no	only for branches	no
Other	——	——	no	——
Charging System	Photocharger	Photocharger	Recordak with IBM punched cards	Gaylord Charge-A-Plate; Regiscope on bookmobiles
Public Areas				
Public study rooms	1	——	tables in dept. areas; 6 study carrels for serious research	3

Multi-purpose room	3,600 sq. ft.	——	3 (incl. aud.)	2,500 sq. ft.
Seating capacity	318	80	100, 200, & 463	125
Chairs	movable	movable	movable, movable, fixed	movable
Stage	movable	——	movable, movable, fixed	fixed
Projection booth	yes	——	no, no, yes	yes
Room dividers	no (but in conf. rm.: folding on track)	——	no, no, no	no
Loudspeaker system	yes	——	yes, yes, yes	yes
Earphones for hard of hearing	no	——	no, no, no	no
Kitchen facilities	yes	yes	no, no, yes	yes
Conference rooms	2	2 plus use of board aud.	no	2
Seating capacity	30 & 65 (can be divided into 3 smaller rms.)	——	——	20 (40 combined)
Emergency room	yes	——	small first-aid rm. only	yes
Public toilet locations	A level; 2d, 3d, & 4th fls.	mezz. & lower level	museum, aud., 2d & 3d fls., children's rm.	children's dept., 1st fl. reading rm., 2d fl.
Facilities for handicapped	yes	no	no	yes
Eating facilities				
Staff	kitchens & dining rms.	cafeteria	cafeteria	coin-operated canteen & staff rm. with kitchen
Public	coin-operated cauteen	——	no	no
Checking facilities	Coin- or token-operated lockers; 1 cloakroom	no	coin- or token-operated lockers	locked lockers

APPENDIX A—(*Continued*)

Library	New Orleans Public Library	Norfolk Public Library	Queens Borough Public Library	San Antonio Public Library
Director	M. Eugene Wright, Jr.	A. M. Kirkby	Harold W. Tucker	Irwin Sexton
City Population				
1960 census	627,525	304,869	——	587,718
1970 census	593,471	307,951	——	654,153
Population of Metropolitan or Other Areas Served				
1960 census	——	——	1,809,578	687,151 (co.)
1970 census	——	——	1,973,708	830,460 (co.)
Main Library Site				
Dimensions	71,378 sq. ft.	25,000 sq. ft.	69,200 sq. ft.	135′×300′
Proximity to downtown area	2 blks.	1 blk.	2 blks.	3 blks.
Proximity to other traffic generators	part of civic center: city hall, Supreme Ct. of La., state bldg. & lib.	all major banks within 1 blk.	3 blks. to principal E-W traffic artery	2 blks.
Proximity to public transportation	bus stops on 2 sides; streetcar 2 blks. away	buses pass bldg.	2 blks. to bus & elev. train; 3 blks. to subway; across st. from bus terminal	1 blk. to bus
Readers' parking	only metered st. parking	37, city-operated	no	no lib.-owned; pub. parking, several hundred cars; 25¢ after 3 p.m. & all day Sat. with lib. stamp.
Controlled parking	——	no	——	——
Is this adequate?	——	no	——	——
Public parking	1 blk.	1 blk. to other pub. parking	1 blk.	½ blk.
Is this adequate?	yes	no	yes	yes, but not free
New Building				
Date opened	12/15/58	9/10/62	4/11/66	1/28/68
Total gross sq. ft.	146,902	76,000	195,000	100,000
Floors below ground	2@33,000 sq. ft.	no	subbasc.: 34,220 sq. ft. base.: 60,756 sq. ft.	no
Floors above ground	2@33,000 sq. ft. mezz.: 15,000 sq. ft.	1st 21,000 sq. ft. mezz.: 12,000 sq. ft. 2d 21,000 sq. ft. 3d 21,000 sq. ft.	1st 68,246 sq. ft. 2d 28,072 sq. ft. pent. 7,728 sq. ft.	1st 25,000 sq. ft. 2d 35,000 sq. ft. 3d 35,000 sq. ft. equip. rm.: 5,000 sq. ft.
Site cost	$358,024	$214,699	$750,000	$102,000
Construction cost	$2,644,050	$1,961,687	$3,988,714	$1,400,000

Equipment cost	$208,012	$241,215	$450,257	$195,000
Other costs (incl. fees)	——	$113,500	$265,000: arch. $250,000: books	——
Book capacity	1,050,000	350,000	860,000	500,000
Readers' seats	——	300	1,000	400
Air-conditioned	yes	yes	yes	yes
Architect	Curtis & Davis; Goldstein; Parham & Labouisse; Favrat, Reed, Mathes & Bergman	McGaneghy, Marshall, McMillen	York & Sawyer	Wyatt & Carrington
Library Building Consultant	John Hall Jacobs	Joseph L. Wheeler	Library Management & Bldg. Consultants, Inc.	Joseph L. Wheeler
Interior Planner	——	——	Interior Planning & Design Serv.	Library Staff
Exterior Features				
Shape	oblong	L-shaped	oblong	oblong
Architectural style	modern	contemporary	contemporary	Moorish
Construction	steel & glass	steel & glass	stone, brick & concrete	brick
Exterior sign	mosaic tile, above eye level; unlighted	eye level, lighted	unlighted	on all 4 sides, 1 lighted
Windows on 1st floor, so passers-by can look in	yes	yes	yes	yes
Display windows	2	no	yes	no
Outdoor reading area	2 outdoor patios, 3d fl.	no	no	indirect—books must be charged out to use
Drive-up book return	no	no	no	no
Book drop	2	2	2	1
Near entrance	no	yes	yes	on back off main st.
Near parking	in no-parking zone on st.	——	yes	no
Sidewalk level entrance	no (ramp available)	no	yes	yes
Automatic entrance doors	no	no	no	yes (treadle)
Loading dock	yes (back entrance)	yes	yes	yes
Dock leveler	no	no	no	no
Parking garage for:				
Bookmobiles	no (2 parked on st.)	no	4	no
Administrative cars	yes	no	no	no
Staff cars	20	no	no	no
Trucks	2	no	5	no
Is garage part of building?	lih. parking lot hehind bldg.	no garage	no	——
Parking space available				
For staff cars	no	1	no	3, rear of bldg.
For other vehicles	no	no	no	2 trucks, rear of bldg.

APPENDIX A—(*Continued*)

Library	New Orleans Public Library	Norfolk Public Library	Queens Borough Public Library	San Antonio Public Library
Provision made to extend building	yes	yes	horizontally	vertically
How many sq. ft.?	——	42,000	40,000	40,000
How many floors?	——	2	on 2d fl.	2
Sq. ft. per floor	——	21,000	40,000	20,000
Interior Features				
Open plan	Yes (modular)	yes	yes	yes
Distance between columns	——	40′	27′	22′
Controls				
Entrance & exit	——	——	attendants	circ. staff
Circulation desk	——	yes	——	circ. staff
Other	——	——	——	——
Floor load capacity, lbs. per sq. ft.	——	——	125–150	125–150
Floor covering	carpeting, vinyl tile, rubber tile, asbestos/vinyl tile; slate (porch fl.); asphalt tile (stacks); terrazzo	vinyl tile, asbestos/vinyl tile	carpeting, asbestos/vinyl tile	asbestos/vinyl tile, carpeting
Walls	plywood & plaster, vinyl plastic on plaster, concrete & plaster	vinyl on plaster	paint & vinyl	plaster
Floor to Ceiling Heights	21′6″ main fl.; 10′ mezz.; 11′ 3d fl.	10′ 1st fl.; 8′ mezz.; 9′ 2d fl.; 9′ 3d fl.	10′	10′
Ceilings	plaster & metal acoustical	tile, corrugated plastic, & metal	metal pan & fissured	suspended
Mechanical Lifts, etc.				
Public elevators	1	1	2	2
Staff elevators	2	2	no	1 staff & freight
Service elevators	1	no	4	1 staff & freight
Escalators	no	no	no	no
Book lifts	2	1	8	no
Conveyors	1 (roller)	no	1 (mech.)	2 (mech.)
Where used?	circ. div. to stack area in 1st base.	——	return desk	1 tech. serv. 1 book return
Other Mechanical Devices	no	no	8 truck lifts	——

Communications				
Telephone intercom	yes	yes	yes	yes
Conference hookup	yes	no	no	no
Other intercom systems	Kellogg	no	code chime system	code chime system
Telephone jacks	no	no	no	no
Public address system	yes (in aud.)	no	being installed	paging, closing & special announcements
Other loudspeaker systems	no	no	mike & amp. for aud. & meeting rms.	no
Teletypewriter	1	no	interloan, Brooklyn & N.Y. lib. systems	no
Telautograph	no	no	no	no
Facsimile transmission	no	no	no	no
Pneumatic tubes	send messages when using dumb-waiter	no	communication below stacks & serv. desks	no
Other Mechanical Devices				
Signal Systems				
Exits	no	yes	battery-operated alarms	yes
Elevators	yes	yes	call buzzers	yes
Burglar alarms	no	yes	on exits	no
Fire alarms	yes	yes	yes	yes
Other	no	no	chimes	smoke detector
Other Mechanical Devices				
TV Control	no	no	no	no
Using or Planning to Use	city hall programs	in the future	no	city computer
Data Processing Eqnipment	lib. data			
Bookkeeping and accounting	——	——	——	yes
Payroll	——	——	——	yes
Personnel records	——	——	——	no
Acquisitions and ordering	——	in the future	——	no
Cataloging	——	in the future	——	no
Circulation	——	in the future	——	partial: transaction cards
Charging	——	in the future	——	no
Overdues	——	in the future	——	no
Information storage & retrieval	——	in the future	——	no
Other	list of patrons owing lib. books or $10 in fines	——	——	serials control
Catalogs				
Card	yes	yes	yes	yes
Book	yes	no	periodical holdings	periodical holdings

APPENDIX A—(*Continued*)

Library	New Orleans Public Library	Norfolk Public Library	Queens Borough Public Library	San Antonio Public Library
Other	phonograph records	——	no	subj. depts. on 2d & 3d fl. have own catalogs
Charging System	Regiscope	Regiscope	Photocharger	Regiscope
Public Areas				
Public study rooms	no	no	no	5
Multi-purpose room	aud.	no	2,000 sq. ft., aud.; 2,300 sq. ft., exhibit areas	——
Seating capacity	150	——	200 aud., 200 exhibit areas	250
Chairs	movable	——	fixed aud., movable exhibit areas	movable
Stage	fixed	——	fixed	fixed
Projection booth	yes	——	yes	yes
Room dividers	no	——	yes	no
Loudspeaker system	no	——	yes	yes
Earphones for hard of hearing	no	——	no	no
Kitchen facilities	staff only	——	no	no
Conference rooms	3	2	2	no
Seating capacity	25	50 & 300	50 & 50	——
Emergency room	yes	no	2: C-level & 2d fl.	makeshift provisions only
Public toilet locations	1st fl.	mezz.	C-level & base.	2d & 3d fls.
Facilities for handicapped	no	no	hand bars for toilets	no
Eating facilities				
Staff	coin-operated canteen & staff rm. with kitchen	coin-operated canteen	cafeteria, some machines, counter serv.	staff rm.
Public	no	no	no	no
Checking facilities	no	no	no	no

APPENDIX A—(*Continued*)

Library	San Diego Public Library	Tampa Public Library	Tulsa City-County Library System	Wichita Public Library
Director	Marco Thorne	Cecil P. Beach	Allie Beth Martin	Ford A. Rockwell
City Population				
1960 census	573,224	274,970	261,685	254,698
1970 census	696,769	277,767	331,638	276,554
Population of Metropolitan or Other Areas Served				
1960 census	1,033,011 (co.)	397,788 (co.)	360,900	270,628
1970 census	1,357,854 (co.)	490,265 (co.)	——	——
Current estimate	——	——	423,580	347,928
Main Library Site				
Dimensions	150′×200′	2 acres	part of civic center	part of civic center
Proximity to downtown area	1 blk.	1 blk.	2 blks.	1 blk.
Proximity to other traffic generators	center of downtown	next door to convention center; highrise off. bldg. across st.; near U. of Tampa, several high-rise apts. & retirement centers; easy access E-W, N-S expressways	in midst of complex of govt. & civic bldgs.	in central downtown
Proximity to public transportation	many buses nearby	most bus lines within easy walking dist.	on main thoronghfare	1 blk.
Readers' parking	no	152	90 (approx.)	no lib. owned
Controlled parking	——	meter	meter & attendant	meters owned by city; checked by city; lib. gains no revenue
Is this adequate?	——	usually	except when Civic Assembly Center has large events	——
Public Parking	various lots, 1 parking bldg. in proximity; about 700 spaces within 2 blks.; metered st. parking	across st.	adj. to bldg. 184 spaces	adj. to large city parking lot
Is this adequate?	——	multi-level parking facility planned	reasonably; staff not using cars for work use adj. controlled parking	yes
New Building				
Date opened	June 1954	1968	6/30/65	3/17/67
Total gross sq. ft.	144,624	126,000	135,443	112,000

APPENDIX A—(*Continued*)

Library	San Diego Public Library	Tampa Public Library	Tulsa City-County Library System	Wichita Public Library
Floors below ground	A 29,575 sq. ft. B 29,575 sq. ft.	1@21,000 sq. ft.	2@40,000 sq. ft.	1@28,000 sq. ft.
Floors above ground	1st 29,250 sq. ft. 2d 29,633 sq. ft. 3rd 24,060 sq. ft. 4th 2,431 sq. ft.	1st 35,000 sq. ft. 2d 20,000 sq. ft. 3rd 25,000 sq. ft. 4th 25,000 sq. ft.	1st 40,000 sq. ft. 2d 20,000 sq. ft.	ground: 28,000 sq. ft. mezz.: 7,800 sq. ft. 2d fl.: 36,000 sq. ft.
Site cost	owned since 1902	$437,000	$360,478	$470,361
Construction cost	$1,773,135	$2,079,000	$1,864,111	$1,098,847
Equipment cost	$150,000	$400,000	$239,464	$371,731
Other costs (incl. fees)	$160,000	$292,000	$172,483	$680,011
Book capacity	750,000	500,000	510,000 (expan. to 1,000,000)	500,000
Readers' seats	462	328	1,000	427
Air-conditioned	yes	yes	yes	yes
Architect	Johnson, Hatch & Wulff	McLane, Ranon, McIntosh & Bernardo—McElvy & Jennewein	Koberling & Ward	Schaefer, Schirmer, & Eflin
Library Building Consultant	Joseph L. Wheeler & Alfred Githens	John Hall Jacobs	James E. Bryan	Robert Rohlf
Interior Planner	Joseph L. Wheeler & Alfred Githens	Richard Plummer, Inc.	Charles W. Ward	The librarian, the consultant & the architects
Exterior Features				
Shape	oblong	oblong	oblong	oblong
Architectural style	conservative modern	modern	contemporary	neo-classic
Construction	stone, concrete & stucco	pre-cast concrete & bronze glass	stone, concrete & glass	concrete & glass
Exterior sign	lighted	eye level, lighted	on bldg.	metal letters, on lower part of bldg.
Windows on 1st fl., so passers-by can look in	yes	yes	yes	yes
Display windows	5	no	2	no
Outdoor reading area	no	no	yes	yes
Drive-up book return	no	no	yes	no
Book drop	1	3	2	1
Near entrance	yes	1	yes	yes
Near parking	yes	2	no	yes

Sidewalk level entrance	yes	yes	yes	terrace level
Automatic entrance doors	yes (Pittcomatic)	yes (treadle type)	no	no
Loading dock	no	yes	yes	no
Dock leveler	——	no	no	no
Parking garage for:				
Bookmobiles	not at Central	4	no	2
Administrative cars	1	no	yes	7
Staff cars	no	no	22	no
Trucks	1	no	5	1
Is garage part of building?	yes	yes	underground, adj. to lib.	yes
Parking space available:				
For staff cars	no	no	no	no
For other vehicles	no	15 spaces on lot for lib. vehicles	no	no
Provision made to extend building	vertically, but negated by new building codes	vertically	yes	horizontally
How many sq. ft.?	48,058	20,000	80,000 plus 1 fl. (40,000 sq. ft.) not now used	——
How many floors?	2	1	3	——
Sq. ft. per floor	24,029	20,000	1:40,000 2:20,000	——
Interior Features				
Open plan	yes	yes	yes	yes
Distance between columns	22′	21′	27′	not uniform
Controls				
Entrance & exit	guard	checkpoint electronic detection system	yes	——
Circulation desk	guard	——	yes	——
Other	——	——	——	——
Floor load capacity lbs. per sq. ft.	——	125–150	140	125–150
Floor Covering	rubber tile, pub. fls.; asbestos tile, base.; cork, librarian's off.	carpeting, vinyl tile; 3d fl., treated concrete in closed stacks	carpeting, asbestos/vinyl tile, terrazzo	carpeting, vinyl tile
Walls	plaster; some cork	vinyl wall covering in most pub. areas	plaster; vinyl tile in limited areas	plaster
Floor to Ceiling Heights	A level: 7′; B level: 8′; 12′ 1st fl.; 10′ 6″ 2d & 3d fls.	12′	10′	2 stories on 1st fl.; 9′ 2d fl.; 9′ mezz.
Ceilings	plaster & acoustical tile	tile—mineral fiber	acoustical tile	acoustical tile

APPENDIX A—(*Continued*)

Library	San Diego Public Library	Tampa Public Library	Tulsa City-County Library System	Wichita Public Library
Mechanical Lifts, etc.				
Public elevators	1	1	2	2
Staff elevators	3	no	no	no
Service elevators	1	1	no	1
Escalators	no	no	no	no
Book lifts	no	no	2	1
Conveyors	no	1	no	no
Where used	——	from circ. desk to all fls.	——	——
Other Mechanical Devices	——	1 dumb-waiter (book-truck size) from cat.-proc. to all fls.	no	no
Communications				
Telephone intercom	no	yes	yes	no (use phone system, station nos.)
Conference hookup	no	yes	no	admin. offs.
Other intercom systems	no	Stromberg-Carlson intercom system, installed & owned by lib.	buzzers	intercom by dept. phone sta.
Telephone jacks	no	no; however, conduit is laid every 6 ft. in fls. of pub. area	offs. & study carrels	catalog cases
Public address system	no	capable of paging staff areas only, or all-page	no	no
Other loudspeaker system	no	——	no	lectern & mike in aud.
Teletypewriter	Serra Lib. System	network with 4 other large pub. libs. in Fla., 8 univ. libs. & the Fla. State Lib.	Okla. teletypewriter; linked to state dept. of libs.	Kansas Information Circuit
Telautograph	no	no	no	no
Facsimile transmission	no	no	no	no
Pneumatic tubes	no	from circ. desk to closed stacks; to bus. off. & to cat.-proc.	no	connect each dept. and base.
Other Mechanical Devices				
Signal Systems				
Exits	yes	——	yes	yes
Elevators	yes	emergency alarm	yes	yes
Burglar alarms	no	——	no	secret sensitive tel. hookup with police dept. over-night

Fire alarms	no	yes	no	yes
Other	water on lower fls.	——	no	no
Other Mechanical Devices:				
TV Control	no	——	——	no
Using or Planning to Use Data Processing Equipment	someday	RCA Spectra 70	IBM 1050; IBM 360-50 leased time	IBM city-owned
Bookkeeping and accounting	——	yes	yes	being planned
Payroll	——	yes	no	yes
Personnel records	some now	yes	no	yes
Acquisitions and ordering	——	yes	yes	yes
Cataloging	——	——	yes	no
Circulation	transaction cards	yes	later	no
Charging	——	yes	later	no
Overdues	——	yes	later	no
Information storage & retrieval	——	——	no	not yet
Other	——	——	no	no
Catalogs				
Card	central & for each central section of its holdings	yes	phasing out	yes
Book	no	no	yes	no
Other	no	——	no	no
Charging System	Recordak; IBM transaction cards	Regiscope	Regiscope	Gaylord
Public Areas				
Public study rooms	no	——	14 individual; 2 group	no
Multi-purpose room	——	2,000 sq. ft.	aud.	7,000 sq. ft.
Seating capacity	180	200	260	200
Chairs	fixed	movable	movable	movable
Stage	fixed	fixed (platform)	portable	no
Projection booth	no	no	——	no
Room dividers	no	no	——	no
Loudspeaker system	no	yes	——	yes
Earphones for hard of hearing	no	no	——	no
Kitchen facilities	staff rm.	no	——	no
Conference rooms	1	1	lecture rm.	2
Seating capacity	50	45	——	50, 20
Emergency room	yes	no	——	yes
Public toilet locations	2d & 3d fls.	1st, 2d & 4th fls.	subbase.; aud. level; 1st, 2d & 3rd fls.	2d fl.

APPENDIX A—(*Continued*)

Library	San Diego Public Library	Tampa Public Library	Tulsa City-County Library System	Wichita Public Library
Facilities for handicapped	yes	no	——	yes
Eating facilities				
Staff	coin-operated canteen	coin-operated canteen	coin-operated cauteen	staff rm. with full kitchen
Public	no	no	no	staff rm. with full kitchen; catering allowed in 1 rm. on 1st fl.
Checking facilities	free checking at circ. desk	coin- or token-operated lockers	no	no

APPENDIX B

Large Extensions and/or Remodeled Buildings

Library	Memphis Public Library and Information Center		New York Public Library Mid-Manhattan Library (remodeled dept. store)	Milwaukee Public Library	
Director	C. Lamar Wallis		Katherine L. O'Brien	Richard E. Krug	
City Population					
1960 census	497,524		1,698,281 (Manhattan)	741,324	
1970 census	623,530		1,524,541 (Manhattan)	717,099	
Population of Metropolitan or Other Areas Served					
1960 census	627,019 (co.)		—	1,063,230	
1970 census	722,014 (co.)		—	—	
Current estimate	—		—	1,087,752 (1970)	
Main Library Site					
Dimensions	420′×420′ (approx.)		spans 2 bldgs.	300′×400′	
Proximity to downtown area	30 blks.		in heart of downtown area	3 blks. from retail activity	
Proximity to other traffic generators	9 & 15 blks. from shopping centers		easy access for business community	on principal retail shopping st. 1 blk. from major freeway interchange; county ct. house & civic center 1 st. away; within 10 blks: aud., arena, museum, Center for Performing Arts, Marquette U., P.O., rwy. & bus sta. & local newspapers	
Proximity to public transportation	1 blk. from N-S & E-W buses		bus, subway & train easily accessible	on 4 bus routes	
Readers' parking	127		no	no	
Controlled parking	no		—	—	
Is this adequate?	yes		—	no	
Public parking	limited st. parking in neighborhood		—	1 blk.	
Is this adequate?	yes, at present		—	no; city is constructing parking facilities in surrounding area	
Remodeled and/or extended building	*Original*	*Extension*		*Original*	*Extension*
Date opened	April 1955	April 1971	10/26/70	1898 & 1956	(3 projects; took place past 7 yrs.)
Total gross sq. ft.	54,940*	79,443*	62,725 (at 8 E. 40th); 12,285 (at central)	100,000 (1898) 200,000 (1956)	45,919 (formerly occupied by museum)

* This does not include the Business-Technical Department in a downtown building containing 40,000 sq. ft., making a total of approximately 175,000 sq ft. for main library functions.

APPENDIX B—(*Continued*)

Library	Memphis Public Library and Information Center		New York Public Library Mid-Manhattan Library (remodeled dept. store)	Milwaukee Public Library	
Floors below ground	1 @ 18,700 sq. ft.	no	no	4 @ 30,000 sq. ft.	——
Floors above ground	Ground: no	24,028 sq. ft.	4th & 5th 31,000 sq. ft.	2 @ 40,000 sq. ft.	——
	1st 23,140 sq. ft.	25,434 sq. ft.			
	2d 13,100 sq. ft.	26,196 sq. ft.	6th adm. hdqrs. for branch lib. system (above dept. store)		
	pent.	3,785 sq. ft.			
Site cost	$70,000	$152,378	lib.-owned bldg.	not available	——
Construction cost	$700,000	$1,995,000	$2,500,000 (est.)	$2,966,886	$1,248,037 (remodeling)
Equipment cost	$100,000	$264,774	$400,000 (est.)	$69,151	——
Other costs (incl. fees)	——	——	$1,275,000 (books)	$168,344 (arch.)	——
Book capacity	230,625	530,000 (est.)	700,000 entire bldg.; 350,000 at present	1,600,000	——
Readers' seats	160	500 (est.)	1,033	600	——
Air-conditioned	yes	yes	yes	yes	yes
Architect	Everett D. Woods	Yeates & Gaskill	Bloch, Hesse & Shalat	Grassold, Johnson, Wagner & Isley, Inc.	Grassold, Johnson, Wagner & Isley, Inc.
Library Building Consultant	——	C. Lamar Wallis, dir.	Lib. staff	no	no
Interior Planner	——	C. Lamar Wallis, dir.	Lib. staff	no	no
Exterior Features	*Original*	*Extension*		*Original*	*Extensions*
Shape	——	oblong	3 fls. of 6-story bldg. (originally a dept. store) & extends into adj. off. bldg.	square (combined old & new)	
Architectural style	——	modern	——	Italian Renaissance	modern
Construction	——	brick, concrete & glass	stone & brick	stone	stone, steel & glass
Exterior sign	aluminum letters, not lighted, 10' above ground		lighted, above door level	at eye level, not lighted	
Wiudows on 1st fl., so passers-by can see in	yes		lib. not located on st. level	yes	
Display windows	4		no	2	
Outdoor reading area	no		no	no	
Drive-up book return	no		no	yes	
Book drop	2		no	2	
Near entrance	yes (on st.)		——	adj. to drive-in	
Near parking	within 100–200 ft.; may be relocated		——	yes	

Sidewalk level entrance	slightly elevated ramp; also at st. level in renovated section	yes	no—10 steps
Automatic entrance doors	no	no—revolving door	no
Loading dock	yes	no	yes
Dock leveler	no	——	no
Parking garage for:			
Bookmobiles	2	no	4 & 2 book vans
Administrative cars	no	no	6
Staff cars	no	no	1
Trucks	1	no	4
Is garage part of building?	yes	——	yes
Parking space available:			
For staff cars	47	no	no
For other vehicles	4	no	no
Provision made to extend building	horizontally	landlocked bldg. flanked by dept. store & off. bldg.	already done
How many sq. ft.?	undetermined	——	45,919
How many floors?	3	——	——
Sq. ft. per floor	undetermined	——	——
Interior Features			
Open plan	yes	yes	yes (new part)
Distance between columns	25′	varies betw. 24′ & 26′ N-S; 17′ E-W	32′
Controls			
Entrance & exit	panic devices at exits	guard at exit; inspects briefcases & packages	no
Circulation desk	no	no	placed near exits
Other	no	roving guards	no
Floor load capacity, lbs. per sq. ft.	125–150	120	75–100
Floor Covering	carpeting, asbestos/vinyl tile	carpeting, all pub. areas & offs.; asbestos/vinyl tile, some staff areas & some work areas; ceramic tile, toilet facilities	carpeting, asbestos/vinyl tile, asbestos tile, marble mosaic (rotunda & corridor), quarry tile (base. corridor), ceramic tile (washrooms)
Walls	concrete block & gypsum board	vinyl covering	plaster
Floor to Ceiling Heights	8.4′ to 11′	8′ to 10′	12′ except spec. areas; 7′3″ 3 tiers, 8′ 4th tier
Ceilings	2′×4′ & 2′×2′ lay-in	hung ceiling with acoustical lay-in tile	fiber, fiber-glass, mineral, & steel
Mechanical Lifts, etc.			
Public elevators	2 (incl. 1 in original bldg.)	2	5 (incl. old bldg.)
Staff elevators	1	1	2 (incl. 1 in unremodeled area)
Service elevators	no	1	1
Escalators	no	2 up; 2 down	1
Book lifts	3 & 1 book truck lift	no	1

APPENDIX B—(*Continued*)

Library	Memphis Public Library and Information Center	New York Public Library Mid-Manhattan Library (remodeled dept. store)	Milwaukee Public Library
Conveyors	2: (1) roller, (2) mechanized	no	no
Where used	(1) catalog dept. (2) circ. desk	—	—
Other Mechanical Devices	no	—	1 Book Veyer
Communications			
Telephone intercom	no	admin. offs.	Bell system with connections betw. branches & central bldg.
Conference hookup	no	no	yes
Other intercom systems	Teletalk	Centrex System	lib.-owned telephone intercom system for central bldg. only
Telephone jacks	2 pub. study rms.; also union catalog	union catalog	no
Public address system	no	no	(1) aud. & (2) PA system related to lib.-owned intercom connected to tiers
Other loudspeaker systems	no	no	at drive-in window
Teletypewriter	TWX	TWX, interlib. loans, Brooklyn & Queens; Telex, communication with borough offs.	TWX; lib. serves as state resource for other pub. libs.
Telautograph	no	no	no
Facsimile transmission	no	no	no
Pneumatic tubes	no	no	no
Other	In-Wats telephone for state use; electro-writer: used to communicate betw. pub. serv. areas & closed stacks; & betw. offs. & work sta.	no	tubes in hollow pillars: transmit call slips from pub. desks to 2 tiers; operates by gravity
Other Mechanical Devices			
Signal Systems			
Exits	no	lighted	alarms at emergency exits
Elevators	yes	phone in auto. elevators	alarms for people caught
Burglar alarms	no	no	no
Fire alarms	no	yes	yes
Other	no	no	dial-telephone intercom
Other Mechanical Devices			
TV Control	Yes—from Memphis Rm. with special collections	no	no
Using or Planning to Use Data Processing Equipment	not in the immediate future	IBM 360/40	changing over from lib. Remington-Rand to city-operated IBM. Aim for total system incl. all areas listed below.

Bookkeeping and accounting	—	—	—
Payroll	—	—	city processes
Personnel records	—	—	—
Acquisitions and ordering	—	—	working on shelf list & acq. programs
Cataloging	—	yes	—
Circulation	—	—	—
Charging	—	—	—
Overdues	—	yes	—
Information storage & retrieval	—	—	—
Other	—	—	—
Catalogs			
Card	yes	no	yes
Book	no	yes	no
Other	no	no	no
Charging System	Remington Rand Transcopy	Regiscope	Newark numerical, partially self-charge system
Public Areas			
Public study rooms	2	129 carrels	no
Multi-purpose room	3	no	2 @ 1,100 sq. ft.; 1 @ 5,800 sq. ft.
Seating capacity	—	—	2 @ 99; 1 @ 600
Chairs	movable	—	2 movable; 1 fixed
Stage	1 movable	—	1 fixed
Projection booth	in 1 rm.	—	1
Room dividers	folding	—	no
Loudspeaker system	no	—	yes
Earphones for hard of hearing	no	—	no
Kitchen facilities	no	—	no
Conference rooms	2 (staff)	2 (staff)	1 for readers using microform equip.; several small typing rms. used for conf. of 2 or 3 people
Seating capacity	18 & 25	70 & 25	—
Emergency room	yes	1	not specifically; rms. available in emergencies
Public toilet locations	yes	4th & 5th fls.	1st & 2d fls., & base.
Facilities for handicapped	yes	—	1 remodeled (equipped for wheelchair)
Eating facilities			
Staff	coin-operated canteen	snack bar	coin-operated canteen
Public	no	no	no
Checking facilities	no	no	coin- or token-operated lockers