Public Libraries:

The Heart of the Community
And
A Sense of Place

A Study and Analysis for the Design of Public Libraries

INSIGHT Architects, PC

April 14, 2004

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About the Author

John Alexander Shurley, AIA is an architect in Charlotte, NC and one of the founding partners of INSIGHT Architects. John began his interest in Library design during the summer before his senior year at Oklahoma State University where he worked for Beck Associates Architects, one of the premier library design architects in Oklahoma. His interest and passion for library design carried over to his final year in school where his graduate thesis project concentrated on how public libraries are designed and constructed. Upon graduating from Oklahoma State University, he returned to Beck Associates where he expanded on his education in library design and was involved in the design of close to 12 libraries ranging from 2,200 square feet to 34,000 square feet.

Because of his continuing interest, John has continued to closely look at the design and construction of libraries and incorporate his research and findings in "Public Libraries: The Heart of the Community and a Sense of Place"

"I find television very educational. The minute somebody turns it on, I go to the library and read a good book."

Groucho Marx

Introduction

It is important to understand that there are no two library designs alike. The library building is a direct correlation to its community and its users. The relationship between the library and its community can influence one another in profound ways.

The intent of providing these ideas and concepts is to create a library facility that works the best for the users staff and the community itself. Many of the ideas outlined will not be applicable every specific location or community, however, may give ideas that can enhance the community and its users.

There are some individuals that believe that the physical libraries of today will go by the wayside of Internet technology and the virtual library. The fact is that the physical library will serve to complement and enhance the virtual libraries of the future rather than to replace them. In many cases, libraries are creating virtual areas that are exclusively for Internet users. Research has determined that Internet users are one of the growing users of the physical library. The addition and growing need for distance learning centers can be easily added into the library, which increases the flexibility of the facility itself.

As the community grows, so will its civic buildings, and their need.

"I have always imagined that Paradise will be a kind of library."

Jorge Luis Borges

Part I – The Analysis

Enhancing the Quality of the Community

A library can in many ways be considered the heart or focal point of a community. The library as a building has served in the past and continues to serve as an important civic function for the city or community, by not only providing an invaluable service, but also the expression it creates for the community itself. This expression needs to respond to current trends of the community and at the same time look to the future. The aesthetics of the building greatly varies depending on the community itself and the image the city, town or community wishes to create. The exterior of a library needs to entice and draw patrons into the library, and upon entering the library the interior needs to be designed to keep them coming back.

Taking this into account it is imperative to gain the insight of the community, staff, and expert consultants that can assist in the efforts to create a functional design and one that will withstand the test of time aesthetically and functionally.

The Design Process

It goes without saying that the design of a library takes a great deal of teamwork from a wide range of individuals; the community, staff, designers and planners. A few concepts that need to be taken into account when designing for the future are outlined below:

1. An analysis of the community needs to be assessed with key questions asked and answered. They include: any demographic shifts, population growth, traffic pattern shifts, and economic status changes, to name a few.
2. An analysis of the existing conditions of the library and the growth over the last 5-10 years. Asking questions like: Which areas of the library have had the greatest change in volume count. What programs have increased? What programs is their interest in adding?
3. An analysis of the existing building, and the existing collection.
4. Encourage discussions with users and staff to determine how the library can better serve the community and its users.
5. Begin looking at how the library will grow over the next twenty years.
6. Begin looking at priorities and goals for future needs and formulate these into objectives.
7. Begin assigning space needs and objectives, and consider the space requirements in relationship to locations for the facility. Is the existing building adequate? Can an expansion be added? Does a new site need to be considered?
8. Begin investigating possible site locations and their relationship to the community infrastructure.
9. Begin formulating a budget for the overall project. This needs to include Design fees, property acquisition, construction and furnishings to name a few costs.

All of these items are an integral part of the design process prior to the physical building design; however, much of this takes place throughout the design process to insure the best possible design for everyone.

Analyzing Community Trends and Involvement

In looking at the community, the location of population growth is an important consideration in determining the potential location of the library facility. Another aspect to consider is the role and image in the community the library is to play needs to be considered. Many times in a community in which there is a desire to provide growth in the downtown area. Placing the library in a prominent location downtown will say a great deal about the community itself and the libraries role in the downtown area. This will also spur additional growth in the downtown area because of its proximity to other civic areas.

Engaging the community in the design process can benefit in numerous ways. The community will get behind the new facility and the design team can learn more of the needs of the community. Often round table discussions can take place that will maximize the effectiveness of the library itself.

Donors to the library are a tremendous aid to the library, and a donor loves to see where they have made a difference. This can be done in many ways. Selling pavers for the entry into the building with their name on them is one way to add excitement from the donor's perspective. This also allows for smaller donors to see where they have made a difference. The donor pavers also creates a strong sense of community. Another way is to provide a tile workshop for parents and their kids to design a ceramic tile to be placed on a wall or floor of the children's area or common area. Both of these ideas add to the character of the community and creates' a personal interest in the community library. Another way to spark interest in the future library is to provide a model or drawings of the proposed library and prominently display them in the existing library. This gives the users of the library something to look forward to.

Site Considerations

The location for a new library building needs to take into account many factors that influence the size, design, and even the uses or functions inside the building itself. The proximity to other buildings and their uses also needs to be considered.

In a growing community, more often than not, the site needs to allow for building expansion in the future. Typically, adding an additional third of the proposed design is a rule of thumb, in determining the future expansion needs of the future. It is imperative that this expansion is incorporated into the design of the library initially, to add flexibility to the site for the future. The easiest way to accommodate for expansion is to initially look at additional land when selecting a site. If an existing building is being considered, investigate options of adding onto the existing building in the future or allowing a tenant to share a portion of the existing building until the need for expansion arises. Another way to allow for expansion is to locate near shopping centers or other community centers that parking can be shared with the other uses. It is recommended, to incorporate

individual parking for the library itself, without this need, but this is a possible consideration in a future expansion if limited space is available.

Often placing a library near a transportation hub or route, allows individuals that may have difficulty accessing the library the ability to do so. The library needs to be located near a road or provide good visibility from the road to attract users to the building. This emphasizes the strong community identity as well.

In determining the location for a new library, the question is asked; do we want to move into a renovated building or expand the existing library? This question is one that is very important and in many cases the best option. Often the initial cost to renovate a new building in the short run appears to be the most economical and easiest choice, however, to determine whether this is the best option will require a life cycle cost analysis. To put this into terms that are easier to understand, the cost of the building including maintenance, utility costs, and many other factors over the lifetime of the building need to be considered. This analysis is an important one, and requires extensive evaluation. Even after a life cycle cost analysis is performed, it is important also to look at the impact of moving into an existing building will have on the community itself. For example; If there is an historic building that means a great deal to the community, that may prove to be a definitive reason to move into the historic building.

The site itself needs to consider the required parking needed for the new building, and the ability to allow pedestrians to have minimal interaction with vehicular traffic on the site. This creates a safe pedestrian environment. Parking requirements for a library vary, and are ultimately determined by the local jurisdiction of the community. A good standard to consider in the preliminary considerations range between, one parking space for every 200 square feet of building area, to one parking space for every 500 square feet. Accessible or disabled parking also needs to be taken into account. (This will be discussed in a later section)

The orientation of the building on the site needs to allow for the main entry being easily accessible from the parking and also provide for the entry to the building to be on the ground or main level of the library. The staff parking needs to be easily accessible from the staff entry and be well lighted for security. A vehicular book drop off is a convenient feature of the library that in many ways will prolong the life of the collection. The book drop off should be located on the driver's side and is recommended to be located so the books drop into the staff areas.

More and more communities are incorporating an outside storytelling area for children, also used for other community events. Some smaller communities have incorporated this area as a location for community theaters and events. The outside area needs to include adequate lighting for evening events and security. It is recommended that a stepped or tiered seating area be used.

Some rural libraries have on site a mobile library truck. The site needs to provide a location for the mobile library truck in a safe and secure location.

It has been determined that the location of a library and the orientation of the library on the site are major factors that can work in favor or against how much the library is utilized. These factors along with the design team (architects, engineers, library staff, user

groups,) can assist in creating a focus for the community that everyone is proud of for years to come.

Existing Needs and determining future needs

Determining the existing conditions is a critical part of determining the future needs of a new library facility. This includes determining the existing collection count to begin with. This needs to be broken out in each of the areas such as children's collection, reference collection, etc. It is also a good idea if possible to determine the rate of growth each of these collections has had in the last five years and what the possible reasons for their growth may have been. This could have been due to one or a group of donors that contributed an especially large collection to one of these areas. If this is the case, it is a good idea not to include that in your collection calculations because it will give inaccurate information as to the average growth of a section. Are their special collections that need special treatment or shelving? From time to time a donor in a community may request that his collection have special treatment. This is more common with University libraries; however, occasionally I have seen this be the case in a town's branch library. After determining the volume count for each of the areas, it is easy to use a factor for each of the collections to estimate the needed stack space needed. Below are factors that are commonly used however vary depending on the exact types of books to be housed in the stack areas.

Collection	**Vol./Ft.**
General Collection (Fiction, Non-Fiction, Young Adult, Other General)	8-10
Reference Collection (Typical Reference Collection)	5-7
Children's Collection (General Children's, Picture Books, Story Time)	12-15
Periodicals (Periodicals and Newspapers)	18-20

Collections stacks vary in height from 42" high to 90" high. The typical length for each stack is 3'-0", however, manufacturers can provide other lengths to meet the needs of the facility. Stacks will be discussed at more length later.

The furnishings will also need to be assessed to determine the possible need for replacement or reconditioning of existing furnishings as well as the addition of new furnishing requirements. Also, it is a good idea to consider determining the furnishings that are used the most and the types of areas the majority of the library users utilize. This will help optimize the comfort for the users.

The equipment and computers need to be assessed as to their condition. If computers and printers are rarely available because there are too few, this will need to be looked at in determining if additional computers are needed. This will be discussed in more detail later.

The multipurpose area and other group areas will need to be assessed as to the frequency of use and the types of uses. Are their any special requests that are commonly asked for?

Has there been the need for smaller group rooms or would that have made certain meetings or gatherings easier to accommodate. Questions such as these will make the initial planning much easier and create a more efficient use of the space requirements.

The existing staff of the library and the possibility for additional staffing with a new library needs to be determined. Even the hours the staff works needs to be looked at in determining the staffing needs and the space to accommodate their needs. It is a good idea to determine the peak times the library is in use and consider the staffing needs during those times.

This is only a small part of an existing building assessment in determining the needs for a new library facility.

> **"No place affords a more striking conviction of the vanity of human hopes than a public library."**

Samuel Jackson

Part II - Spacial Design

Building Systems

One of the major factors in the design of a library is creating flexible space with the ability to expand and adapt to change easily. The structure of the building is one important part of the building that needs careful consideration in the design. Either concrete or steel column structure with minimum load bearing walls is the preferred structure of a library building. This provides the maximum flexibility and expandability of the building. Load bearing walls limits the ability to expand or reconfigure the building to evolve as the library does. If the site is restrictive for outward expansion and adding an additional floor is considered, it is recommended that the structure be taken into account for upward expansion during the initial building design and only slightly effects the overall building cost. The cost of additional structure later adds unnecessary cost if not considered initially.

The exterior walls of the building should allow for as much stack space as possible. What this means is that windows are good for day lighting however should be used sparingly to allow for shelving along the walls. Windows and views to the outside add a great deal to the interest and excitement of a new library facility. The ability to frame views to the outside can add drama to the building and space but need to be looked at carefully in the building design.

In determining the final size for the library to be designed one needs to take into account the non-assignable square footage of the building. These spaces are areas that cannot be allocated directly for library services. This includes corridors, custodial closets, restrooms, mechanical and electrical rooms and telecommunication rooms. These non-assignable areas normally account for about 20 to 30 percent of the overall square footage of the building. In determining the amount of non-assignable square footage a good rule of thumb is to consider a 70:30 balance between assignable and non-assignable square footage. This ratio is only a means in determining estimated square footages. As the building increases in size, the non-assignable ratio will decrease. The key is to design a building that is economical in its use of space and maximize the areas to be utilized by the public.

Entry and Common areas

The entry into the building is one of the most important and dramatic parts of the building. It provides the users with a sense of arrival. The entry needs to be prominent from the outside of the building to make it easy for individuals to know how to get into the building. This can be done in ways too numerous to mention and needs to be an integral part of the aesthetics of the building. Often the entry is well lit at night to indicate the location of the entry at night and for security of its patrons.

The entry into the building needs to take into consideration accessibility requirements for disabled users. There needs to be only one main entry and should be located on the main

ground level for easy access. A covered drop off is recommended. This provides the users with an area to load and unload people and items. This not only protects the users, but also protects the libraries collection. The drop off area should be well lit, and provide a safe place for individuals to wait. In some cases a bench or seating is provided.

Depending on the location and climate of the library building, an air lock is recommended. They would be recommended in humid, particularly hot, and particularly cold climates. This will save on long term heating and cooling costs. The entry doors need to provide an opening that is six feet wide. This allows larger items into the library if needed. Automatic sliding doors are recommended if the space and budget allows it. If manual doors are provided, a pair of double swinging doors is recommended. If double swinging doors are used, both sides will need to be operational while the library is in use. This is often a fire marshals requirement. A walk-off mat is recommended at the entry doors to reduce dirt into the building. This will greatly reduce the wear of the carpet in the remainder of the library.

The entry is also an excellent location to display and promote local artists in the community. The entry space can provide a location for exhibit space for student exhibitions in the local schools. The entry area can also be a wonderful location to provide a commissioned art piece by a local artist. If a commissioned piece of artwork is planned it is important that it is designed into the library itself.

Community information boards and displays are a common way the library can play an important role in the communication for the community. The entry area can incorporate the design of a community board and display case. The display case needs to be lockable, and provide lighting from the top of the case itself. If the display case is top lit, provide tempered glass shelving to allow light to pass through the shelves themselves. If no lighting is planned in the display case the interior walls of the case need to be white to allow for the maximum contrast of the displayed items themselves and ample natural or directed light. If possible, the display case needs to be accessible from the inside of the library proper.

From a security standpoint, it is important for the entry to be very visible from the circulation desk. In some libraries it may be important to provide security cameras. This will depend greatly on the size of the library and the view from the control point of the library.

The entry needs to allow access into the community or multipurpose rooms. Depending on the uses of the multipurpose rooms it may be a good idea to provide a separation between the common area and the library proper for after hour uses of the multipurpose rooms. This is an idea that needs to be determined on a case-by-case basis. The entry area needs to have access to the restroom facilities and public telephones. Both of these need to have visual control from the circulation desk or other control point.

Provide signage indicating the hours of service easily visible from 20 feet from the main entry.

Furnishings:

- Trash Receptacle
- Ash Receptacle (outside the building)

- Bench Seating

Multipurpose or Community Rooms

The design of the multipurpose or community rooms needs to be designed with as much flexibility as possible. It is beneficial to be able to divide up the space to provide as many options for the users as possible. This can be achieved by providing a moveable partition that has the flexibility to provide two separate spaces and at the same time, make it possible to create one large space also. As a rule of thumb, providing a 2/3:1/3 ratio provides the maximum flexibility. Each portion of the community room should be equipped with projection screens and data connections.

The lighting needs to be on dimmers to allow for a wide variety of presentations. A computer connection is often a benefit that accesses a computer projection monitor mounted in the ceiling. This is an item that adds to the cost of the building, and the need for such technology needs to be determined from a long-term standpoint. The conduit can be added to provide for the technology in the future if an immediate need cannot be determined. A single source location for regulating lighting and accessing projection screens is a positive.

Storage needs to be taken into account for necessary stacking chairs, folding tables and audio/visual equipment. The best-case situation allows for access to the storage from both divided portions of the multipurpose room. This is often difficult because of the overall layout of the space. A good rule of thumb in the amount of storage is a minimum of 75 square feet, or about 8 ½ square feet for each six occupants.

Kitchens are sometimes being provided (usually accessible from the larger divided portion) for use during meetings. These kitchens have counter space, lockable cabinets, sink, microwave, and refrigerator. In determining the need for a kitchen the staff needs to consider the maintenance and upkeep. One way to incorporate a kitchen is to design the library in a way as to share the multipurpose kitchen with the break room. The downside to this is it can limit the employee use of the kitchen area. Kitchens are more of a luxury for the facility and often not recommended depending on the frequency of its use.

The use of the multipurpose room for larger children's functions is a great benefit, by providing a safe place for the children and reduce the disturbances in the main portion of the library. It is recommended to locate the multipurpose room so it is easily accessible from the children's area. This can be achieved by providing an indirect separated access between the two functions.

Furnishings:

- Stackable chairs
- Folding Tables (5' long preferred)
- Audio-visual equipment

General Collections

The general collection area needs to provide flexibility for future needs and also provide for the needs of all individuals currently. Accessibility for the disabled is becoming more and more of an issue, and these issues need to be addressed.

Typically, the shelving for the general collection allows for 8 volumes for every foot of shelving space. These numbers vary for oversized books and collections. The length of a stack row should not exceed 27 feet if both ends are open and accessible. Typically, it is better practice to not provide dead end stacks. If there is no way of avoiding it, a maximum distance of 15 feet should be maintained. The general collection shelving should be oriented perpendicular to a control point. This allows for visual control between the shelving. Typically, this is a good rule of thumb for all shelving regardless of the type of collection.

A section should be located as part of the general collection for the young adults. Adolescents do not like to be classified as children, and prefer having a special section devoted to their needs in the general collection.

Standard shelving is most commonly standard steel shelving. At times custom wood shelving is provided, however, this is at a premium cost and not recommended. One way to add a custom look to shelving without extreme additional cost is to incorporate wood end sections on the visible ends of the shelving. These end panels need to include shelving signage for the general collection.

A new or popular book display is recommended within the general collection. This can display books of the month, or new collections into the library. A community bulletin board can also be located near if it is not provided in another location. These kiosk type units break up the standard shelving and adds visual variety, and at the same time allows the materials to be displayed face out. To add interest and excitement to the area these units can be colored if desired.

Computer space will need to be adequate for existing needs and the future needs of the library. This includes computer cataloging and computer stations for the publics use. Seating to allow for the use of personal lap top computers is becoming more necessary and data and power ports are becoming more common.

Many special collection and rare book collection items will require being located on computer to prevent damage. Also adequate printers, scanners, and other audio/visual aids will need to be present. Often this computer space is located near the reference or circulation desks for control purposes. In smaller libraries the computer space can be directly incorporated into the reference desk to save construction costs and valuable space.

Furnishings:

- Book Shelving
- Reading Chairs
- Study desks (individual and group)

Reference Collection

The reference collection is one area of the library that is changing more quickly than most. With the use of technology and the need for computerized reference materials, computer stations are increasing in number to allow for scanners, printers and other computerized equipment. Internet ports are becoming a need for access.

Shelving for reference books should allow for 5-7 volumes for every foot of shelf space. Again, like the general collection the shelves should only be stacked to 2/3 capacity maximum. This allows for expansion without much effort and work. The reference collection shelving will need to be 42" shelving. This allows for users to review reference books on top of the shelving.

The reference desk needs to have good visual control of its collection. This often means orienting the shelves so they are perpendicular to the reference desk. Depending on the size of the building, either the reference desk can be combined with the children's desk or the general circulation desk if the facility has a very small collection.

The reference desk needs to be equipped with data and power to utilize the necessary computers. Storage is another often overlooked item. It is necessary to provide storage for paper products and supplies. The size of the reference desk needs to take into consideration the frequency it will be staffed.

Children's Collection

The children's book collection needs to be at a level easily accessible for younger children. This means providing 42" shelving. The children's collection needs to allow for 10-12 books for every foot of shelf space. A children's book display or book of the month display is a real draw for the younger readers. The children's collection is often broken out into two different and distinct categories: the easy picture book area which is for the preschool children and the juvenile area which is for school age children up to about the sixth grade. These two areas need to be designed accordingly for the children using these areas.

The children's reference desk needs to provide good visual control of the collection, and also provide control of the reading areas and other seating areas. There is a good chance the children's area may not be staffed at all times depending on the size facility. It is a good idea to consider locating the children's area where it can be easily visible from the main circulation desk.

The children's area needs to provide a reading or story time area for group reading. The key is; create a space that is playful and inviting without being distracting. This can often be accomplished by providing a stepped reading area or reading pit.

As discussed earlier, locating the children's area near an easily accessible route to the multipurpose room is a great benefit. This allows children access to a larger area so they do not disturb the remainder of the library users. Often an outside reading area for the children can add to the library by providing an alternate location for children's reading time, and can be incorporated into the site amenities discussed earlier. The accessibility

to any outside area needs to be closely controlled and provide limited access for the safety and security of the children.

The entrance to the children's area needs to be easily visible and inviting for children and clearly indicate the children's area. This can be done by lowering the ceiling in the children's area, or by providing an entry that is on more of a children's scale. Changing the scale of the space adds to a children's enjoyable experience of the library. Providing colors that are inviting to children also adds to the children's experience. Even when looking at the furnishings it is a good idea to choose bright and colorful furnishings.

One great addition to the children's area is providing an exhibit or display tack surface at some location easily visible inside the children's area for displays from schools or daycare centers. Also a tack strip located along one wall will allow artwork to be displayed from time to time.

The children's reference desk may provide audio/visual and Information Technology resources that may need the assistance of the library staff. Near the children's reference desk is a good location for children to place school supplies in a safe location while they are in the library. The children's service desk needs to be between 29"-30" high and between 30"-36" deep, and contain a combination of lockable drawers and cabinets for maximum flexibility.

As previously discussed, it is important to locate the young adults in a separate area from the children's collection. Adolescents typically feel uncomfortable being associated as a child. Often adolescents will come with their younger siblings to the library, and it is good to have some proximity to the young adults section for a sense of security for the younger children.

Reading Areas/Seating Areas

Reading and studying areas are good to have dispersed about the library. They need to vary greatly, and be easily arranged. Relaxed individual lounge seating away or secluded but inviting is a great place for some. This provides an environment for readers to spend time relatively undisturbed. These areas should still be easily visible from a control point. Lounge seating should not be in groupings larger than 4 chairs and is utilized if they are not in rows, but rather in offset seating groups.

Group seating around tables is an asset for those studying in groups or those who require area to spread out. The table seating should accommodate no more than 4 individuals comfortably. Providing availability for more than four can often cause more noise. Often small conference rooms can be shared with the staff for more private studying areas for groups between 4 and 8 people. These conference rooms are typically used by the staff, but are available for the public to use as well.

Many larger branch libraries are adding power and data ports in strategic areas for easy computer connections. These connection ports are being located in grouped tables as well as near individual seating.

Study carrels are not being used often in today's libraries. Smaller study carrels provide limited room for the user as well as inhibiting visual control of the library. Study carrels can be used if used on the perimeter, and allow for visual control of the users.

Periodicals

This area is designed for the display of current magazines and newspapers and an area with relaxed lounge seating for the readers. This area needs to be less formal and provide natural light and even windows to see the outside if possible.

The shelving must be a maximum of 66" high to meet ADA requirements.

The seating areas need to be grouped in smaller groups of two to four seats per group. The seating needs to be comfortable and durable seating. The material for the lounge seating needs to be easily washable and a material that hides staining. A small patterned material is recommended.

Furnishings:

- Metal Hinged Periodical Display Shelving (1 mag./LF; 24 LF/Unit)
- Lounge Seating and Tables

Circulation Desks

The circulation desk needs to provide the staff with the maximum amount of visual control of the library. If the library is all on one floor, the circulation desk needs to have good visual control of the reference desk and children's reference desk. The entry and vestibule also need good visual control from the circulation desk. This allows the staff the ability to see all users who come and go from the library. Multi-story libraries are a little more difficult to provide visual control, however can be done by providing control points on each floor. On each floor, the reference desk, circulation desk, and children's desk can work as control points for the different floors. It is recommended that the shelving be oriented in relation to the circulation desk to allow maximum visibility between the shelving stacks where possible.

The location of the circulation desk in relation to the entry needs to allow for easy circulation for users checking out materials and also for users to freely circulate in and out of the library. It is important to allow about five feet in front of the circulation desk that is designated for users checking out. If the circulation desk is located too close to the entry this can create an unwanted "bottleneck".

The design of the circulation desk needs be expressive of the library itself and serve as a focal point of the library. This will be the main location of interaction between the public and the staff. It is important to allow the users and the staff to be spread out along the circulation desk when conducting business.

Providing a material drop in the circulation desk is often beneficial. The material drop needs to include a mobile cart location to allow materials to rest on the cart before being checked back in and returning to the general collection. This prevents materials from

gathering on the circulation desk during particularly busy times, and reduces clutter on the work surface. The mobile cart also allows the staff to move materials easily without lifting heavy items.

A small area for locked shelving is good to provide for rare books or books that a donor deems exceptionally important. Rare books are not common in a branch library, however, if there are any, they need to be specially climate controlled and maintained. This same shelving can be used for lockable display. Standard shelving behind the circulation desk is recommended for displays and books of the month collections.

The circulation desk needs to provide ADA accessible checkout areas for the users and also accessible areas for staff. This desk should be at 34" above the floor and at least 48" wide with a knee space on the public side.

Portions of the circulation desk needs to be at a height that hides any computer cabling and cords. This can be easily achieved by raising front portions of the desk to 42". The depth of the circulation desk is recommended to be 36" deep. The cash drawer needs to be centrally located along the circulation desk. The material return portion of the desk should be easily visible and easily accessible upon entering the library.

The finishes on the circulation desk need to be of durable materials, especially the countertop. A solid finish material is recommended instead of plastic laminate for the countertops.

Signage needs to be integral and similar with the design of the circulation desk. "CHECKOUT" or "CIRCULATION" and "RETURN" signs need to be easily visible and match the design of the circulation desk. If these are not designed into the building itself, they may take away from the character desired.

Self-checkout stations are becoming more popular and more commonly used. These self-checkout stations need to be close and easily visible from the general circulation desk, and in many instances are extensions of the circulation desk. This proximity allows for the staff to assist first time users of the self-checkout stations. Signage is helpful to identify the "EXPRESS CHECKOUT".

Furnishings:

- Shelving (72 LF min. depends on the size of the library)
- Wall Clock (prefer battery operated)
- Computers
- Cash Register
- Telephones
- Date due printers

Access points for off-site collections

It is important to provide access points or locations for off site collections to be picked up and held. These areas can be located in the administrative areas easily accessible from the circulation desk.

Study Areas including Group Study Rooms

Group study rooms are becoming more and more popular. These rooms can be located between the collection areas and the staff workrooms for maximum flexibility. The reason for this location is that these group study rooms can also double as staff conference rooms. These rooms need to provide good visual control from the control points by providing windows into the library proper. For privacy, horizontal blinds can be added to the room.

These group study rooms (or small multipurpose rooms) may be equipped with Data connections and visual marker boards or projection screens.

Another group study room can also be used as a public computer center that can also serve as a training lab when needed. These labs are becoming used more often as the need for computer training is more and more important.

These spaces are often used for tutoring and training. It is recommended that these rooms accommodate up to twelve people.

Furnishings and Signage

In determining the furnishings in the library, flexibility, accessibility, and durability all need to be considered. The library furniture needs to be sturdy enough to provide solid comfort and at the same time light enough to allow the library staff to move it around easily. Accessible seating and counter top space is required to meet ADA and other local and state accessibility codes and laws.

The furniture in the multipurpose rooms will require stackable furnishings for easy storage.

Office Administration Area

The office areas need to provide as much flexibility as possible as with the rest of the library. A minimum number of closed in offices is recommended, and this number needs to be determined by the size of the library and the fulltime staff required to run the library. One way to open up the office space is to locate any areas that require security or confined areas on one side of the area and open the remainder up to windows to allow for natural light into the space.

The head librarian will most likely require a lockable office for security of sensitive items or lockable file cabinets. If other offices are required it is a good idea for them to be located together. The general work room will require a large amount of open space with adequate layout surface for binding, checking in new books, and any sorting required for the operations of the library. A built in worktable complete with drawers, cabinets, and oversized filing capabilities is a benefit. There has been a trend to provide moveable furnishings that can be easily arranged depending on the needed layout. These furnishing units are very often very expensive.

It is recommended that the work area provide shelving for approximately five percent of the collection out on the floor. This allows for storage of books that come into the library that have not been processed for the general collection or damaged books waiting to be repaired. This shelving can be incorporated into the worktable to save space. Another way of providing shelving in the administration area is to provide compact shelving. If this is considered, it is important that the structural system will allow for this. This is particularly important if the decision is made to renovate an existing building.

The book drop box should be optimally located to allow books to fall into a closet in the office administration area. The drop box room should be provided with a sprinkler and also a fire rated wall for security. This reduces damage to the library if vandalism occurs. The walls around the drop box need to be insulated to reduce noise of returned materials. The room can be about 3' x 3' to allow for depressible bins. The height of the returns will need to be at a height that allows the books to drop onto the books depressible bins. This is commonly a design mistake.

Provide a supply closet with metal or wood storage shelving. This supply closet can also serve as a coat closet. If no other location has been designated staff lockers may be located here.

Furnishings:

- Workstations
- Book Carts
- Bulletin Boards
- Lateral Files
- Safe
- Coat Rack or Closet
- Lockers
- Wall Clock (prefer battery operated)
- Fax Machines
- Copiers
- Computers and Printers
- Telephones

Mechanical and Environmental Control

Mechanical and electrical services should be planned with expansion in mind. The capacities of the potential expansion should either be taken into account in the initial design, or preplan the ability for expansion in the future. More often than not, the second idea appeals more because of budget constraints. The cost of replacing undersized air-conditioning units or providing additional air-conditioning units is a large cost in the addition of a building.

Providing grid ceilings adds flexibility to the mechanical and lighting design by building in another layer of flexibility. The lighting and air diffusers can be easily rearranged in the event of a renovation or expansion of the building. Also, hard gypsum board ceilings are more difficult to repair in the event of damage. Ceiling tiles can be changed out easily and with little additional cost.

The mechanical system for a library needs to provide a low humidity environment to protect the books. A good rule of thumb is about 40% humidity. I rare book areas (if a separate area is provided) the humidity should be lower and the temperature kept below 70 degrees. In the general collection a 72-degree temperature is optimum. This provides comfort for the library users and also protects the collections.

Operable windows are not recommended for natural ventilation. This can often cause humidity problems that can damage the collection and cause security problems. Rare books need closer attention and should maintain closer requirements to reduce damage.

Lighting

Lighting is very important and needs to be carefully considered in the design of a library. Lighting not only affects the functionality of the building, but also creates ambiance and mood. Lighting needs to incorporate a combination of artificial light as well as natural light from windows and skylights where possible and applicable.

Once entering the building any areas allocated to be for displays and exhibits need to incorporate flexible lighting that accents the items being displayed. General lighting also will be required for overall ambient lighting.

The position and type of lighting is of the utmost importance. A high level of general lighting decreases the amount of dark stack space and other dark recesses. The lighting needs to illuminate all shelving areas evenly and provide as much light between the shelving stacks. Indirect lighting that reflects off of the ceiling or walls increases the general lighting of the building. This makes light colored ceiling finishes that reflect light rather than dark ceilings that absorb light recommended.

Close coordination between the shelving and the lighting especially on lower ceilings needs to be considered to prevent shelving from casting dark shadows in the aisles.

Specialized areas such as circulation desks, reference desks and other locations requiring stronger task lighting and need to be designed accordingly. Provide drop pendant lights above areas of particular interest will add the necessary light needed for up close work.

Colored neon or other types of lighting can be added to add dramatic effect at night. The children's area is one area that would also benefit from playful neon or other colored lighting. The colored neon in the children's area can invite children to the area. When considering specialty lighting such as this, if it is used, it is recommended to use it very sparingly because of the high cost. (The same effect can often be done just as effectively with paint or other finishes at a much lower cost).

Natural day lighting is a wonderful way to add light into the building, however should be done in a manner as to not provide direct sunlight onto the books, computer screens or areas that direct or reflected light may distract a reader. This will create glare and make the experience less than optimal.

The parking lot needs to be well lit to provide a sense of security for the patrons of the library. This is also necessary for the front entry. The entry should be well lit for security,

but also to easily indicate how to enter the building. (The building design should do this as well)

Exterior security on motion sensors or timed switches may be necessary to discourage vandalism.

Sustainable Design

The ecological effects of a building and its direct impact on the environment, has created the need and desire to incorporate sustainable design into the building. This can and should be done in numerous ways, to numerous to mention. The idea of sustainable design is important and should be considered in the design of any building regardless of type.

Technology

"The book is here to stay. What we're doing is symbolic of the peaceful coexistence of the book and the computer." Vartan Gregorian, President, NY Public Library

As technology expands as at the pace it is it is imperative to create inherent flexibility into the technology of the library. As technology advances, more people will require access to the most technology, and the libraries of the future are where the people will come. It cannot be assumed that everyone will have access to the latest technology at home or even at work. The public library is becoming a place that many individuals are going for computer training. The computer training includes beginner computer lessons to advanced program training such as Adobe Photoshop and Microsoft PowerPoint.

As the need for online cataloging and Internet needs increase, so will the needs for computer space. In the design of a library, these considerations need to be taken into account sooner than later. One-way of providing the future needs of technology is by providing the conduit and raceway or at a minimum determining how this will be incorporated economically in the future. Some libraries are utilizing wireless technology for their data connections.

Because of the rapid expanding technology, it is important to consider the future needs and possibilities when designing the technology system.

Accessibility

It is important for all parts of the library to be equally designed for all users of the library. This includes, old, young, parents with children and the disabled. In designing a library, one needs to take into account the Americans with Disabilities Act (ADA), along with other local or state accessibility code requirements. Disabled parking needs to be provided for the users of the library. This includes van accessible parking and also the ability to get from the parking space into the building without crossing vehicular traffic. It is also important for accessibility to accommodate for disabled staff.

Shelving and aisle widths need to accommodate for disabilities, and reading areas for wheelchair bound individuals need to be dispersed throughout the seating areas.

The design professional will insure that these requirements are considered throughout the design process.

Cost Considerations

Probably one of the most important items to consider in designing a library is the cost. The items described in the previous sections, are strictly ideas and each needs to be carefully considered in determining the needs for the particular library to be designed in a particular neighborhood or community. It is wonderful to try to get everything into the design to make it the best for the needs of the users.

First, in determining the cost of the library, one needs to take into account is the size of the library. One way to insure the most economical size is to perform a good and thorough needs assessment. This needs to take into account all of the items discussed previously, and any special needs that may not have been addressed. Remember, that a good library design is easily expandable with minimal renovation of the existing space.

Another way of maintaining cost is by the use of materials. Of course, the best materials are recommended for the building, and at the same time, use materials that can be obtained easily.

It is important to look at the locations to spend the bulk of the money. Places like the entry, circulation desk, multipurpose rooms, and other often used areas and areas of distinction like the children's reading area. This does not mean making the other places in the library look cheap or substandard, just that spend the extra money on the areas of impact. One example is the restrooms; provide nice ceramic tile or other quality materials, but the reality is it really does not require top of the line slate veined tile that will run the budget up.

Technology is another item that can very quickly run the cost of a library to exceed any budget imaginable. One way to add the flexibility of technology and still keep costs in line is to provide conduit for future needs and add the technology as the funds become available. Another reason for providing this flexibility is because technology is changing on a daily basis, and if the library is equipped with the latest technology when the building begins construction, by the time of its completion the technology is out of date.

Conclusion

The library can truly be the heart of a neighborhood or community, and can create a sense of pride, and the design of the building from the outside appearance to the inner workings of its patrons and staff are all part of that heart. Not every library will require every suggestion outlined above, and there are many other ideas that will mold the library of the community not discussed here. It is important to consider as many factors as possible in determining the needs of the neighborhood and the library currently and also in the future.

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