

# **Haverford Township Free Library Building Program Report**

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## **Introduction**

The Haverford Township Free Library (HTFL) opened in 1934 in a small storefront at 1625 Darby Road with books that had been collected door-to-door. In 1937, the library moved to its present location at the corner of Darby and Mill Roads. The building was originally a bank, and was donated to the library by former Township Commissioner and Treasurer Horatio Gates Lloyd. In 1979, an addition was built onto the original building, and in 1990, the second floor of the library was completed. The net square footage of the library is approximately 21,000 square feet.

Despite these additions and improvements, the size of the library is no longer adequate for the services and programs it provides. Additional space is needed. The library was also aware that the present building was in need of repair and needed to determine the extent and costs of repairs that would be needed.

In 2003, the library engaged the services of Cicada Architecture Planning to conduct a thorough study of the current library facility. The report, delivered March 10, 2003, is entitled *Existing Conditions Report*. This report articulated a myriad of problems with the building and presented cost estimates for addressing these issues.

Based upon the space needs and the problems and limitations of the current library and site, the library has acknowledged that a new facility on a new site is the necessary solution.

A primary issue to address at this time is the dilemma and debate of making repairs and improvements to the current building while acknowledging that there will be a need to start fresh with a new library facility. During the consultant visit, one of the board members summed up this dilemma succinctly by stating: *"The library is at the end of its*

*useful life.*” Another equated it to an older, very high mileage car with problems from bumper to bumper that would not be worth fixing. In short, the library is concerned that funds to make the improvements on the current building would likely be better spent on a new facility.

This report will objectively assess the optimal spaces that the library should have in order to effectively meet the needs of its patrons. This report and the Cicada report used together will allow the library to effectively plan for its future with respect to its facility.

### **General Background**

The Haverford Township Free Library is a member of and one of six Area Resource Centers (ARC) of the Delaware County Library System. The library receives its primary funding from the Township of Haverford. The service population of the Haverford Township Free Library is 48,498. The library is open 66 hours per week (58.5 in the summer) and is staffed by 15.15 full time equivalents. The collection size is 127,673 cataloged items. In 2002, a total of 129,898 items were circulated from the collection, 19,196 reference questions were answered, and 7,481 adults and juveniles attended juvenile programs. A total of 1,014 adults and juveniles attended adult programs. There are approximately 16,000 registered borrowers.

The HTFL sees itself as a community center and a social outlet that serves citizens of all ages, from newborns through senior citizens. The library is very busy, and the programs and services delivered at the library exceed the building’s ability to effectively deliver them. Additional space is needed for all facets of library services offered.

The library has been involved in a study of its present facility and possible options for many years. Several years ago, this consultant

prepared a brief report that presented the pros and cons of several options available at that time. These included renovations to the current facility as well as possible relocation. All indications are that a relocation will be necessary.

An important element of the library's evaluation of its options will be the estimated resale value of the existing library facility. Money from the resale of the current building would form a core of funding for a new library building. Board members interviewed speculated that the resale value could possibly be as high as \$2-\$3 million. Short of a formal commercial appraisal (a costly process), it would be useful for the library to meet with local commercial real estate brokers to get a more specific idea of the potential value of the building and property. Of course, a formal appraisal will subsequently be required.

Interest has been expressed in the incorporation of environmentally friendly green building concepts in construction. The Appendix of this report contains materials from the website [www.buildinggreen.com](http://www.buildinggreen.com) and provides some basic information on this concept.

### **The Challenge**

The library needs to improve its facility in order to better serve, retain and attract library patrons, particularly those from Haverford Township. Patrons are understandably attracted to facilities with easy parking and with a wide variety of programs and services.

For many years, the library has been exploring options for improving its present facility or moving elsewhere. At the same time, additional problems with the present library have been developing. The board has been put into a difficult position of trying to justify expenditures on the present library when it is known that a relocation may be in the library's

future. One prime example of this involves the roof to the facility, which is in poor condition and needs to be replaced. Another example involves the HVAC system. The library had to close for 8-10 days in the previous year due to lack of heat or cooling.

In addition to the determination of the ultimate need for library space, the library needs to make some shorter term decisions regarding investment in the present facility. It is currently working on the development of an RFP for roof replacement.

### **Demographics**

It is very important in library planning that the characteristics and trends of the community are taken into account. Public library facilities are planned based upon the programs and services that the library plans to offer. Library programs and services are planned in response to its constituents and their needs. The demographic makeup of a community is an integral component of the “community scan.” The information below reveals a summary of the demographic composition of Haverford Township.

The total population of Haverford Township is 48,498. Of this total, 24.9% are less than 18 years of age, 6.3% are 18-24 years, 28.6% are 25-44 years, 22.7% are 45-64 years, and 17.5% are 65 years of age or older. The median age is 39.2 years and the ratio of “males per 100 females” for all ages is 90.6.

The median household income (1999 figures being the most recent available) is \$65,714, and the median family income is \$76,813. Per capita income is \$29,749. Poverty status is present in 3.7% of the population. There are 18,061 occupied housing units with a median value of \$162,600.

With respect to school enrollment, there are 13,462 people aged 3 years and over enrolled in school. Of the population that is 25 years and older (33,384), 8,275 are high school graduates, 5,231 have some college (but no degree), 2,186 have an Associate Degree, 8,671 have a Bachelor's Degree, and 6,580 have a graduate or professional degree.

In terms of employment, 50.3% of the population is in management, professional, and related occupations. Other occupational categories and percentages are as follows: Service occupations (9.5%), Sales and office occupations (28.4%), Construction and maintenance (6.6%), Production, transportation, and materials moving occupations (5.2%).

For additional information on the community analysis process, the library is directed to the following website:

<http://skyways.lib.ks.us/pathway/article.html>

The article, "The Community Analysis Process," by Roger C. Greer and Martha L. Hale is a fresh insight into the community planning process for libraries.

### **Synopsis of Key Goals – Collections, Seating, Technology, Meeting**

Library staff were asked to respond to several critical goals in terms of collections, seating, technology, and program/meeting room space. While there are many other elements that come into play in the planning and design of a public library, these measures are critical in driving the ultimate size of the building.

Collections: Detailed collection goals with collection breakdowns are contained in the *Appendix* to this report. The total collection size (July 23, 2003) is 127,673 items.

- The collection goal is a capacity of 177,505 items.

Seating: Adult seating in the library currently totals 50 seats (including scattered chairs). The goal in a new facility is 100 adult seats. Young adult seating in the current facility totals 11 chairs, with a goal of 30 for the new library. Currently, there are 30 juvenile seats in the library. The goal for the new facility is 50 in the main juvenile collection/browsing area and an additional 60 in a separate juvenile story time area. In summary, seating (excluding the main meeting/program room) would increase from 91 seats to 240 seats.

- The seating goal is 240 seats (exclusive of conference/program room and staff seating).

Technology: The adult area of the library includes 7 Internet PCs, 3 word processing PCs, 3 OPAC (catalog) terminals, 1 typewriter, and one microfilm machine. The goal for the adult area is 12 Internet PCs, 4 word processors, 6 OPAC terminals, 1 typewriter, and 1 microfilm machine.

The Young Adult area of the library does not have any public PCs at the present time. For the new facility, 3 Internet, 1 word processor, and 1 OPAC are desired.

The Juvenile area currently has 4 Internet, 2 game system PCs, and 2 OPACs. For the new library, 8 Internet, 4 game system, and 4 OPACS are desired.

In summary, the number of patron terminals would increase from 21 to 43 terminals in a new facility.

- The technology goal for patron PCs is 43. (This excludes staff PCs and PCs in a public computer lab).

Meeting Space: The library presently has a large meeting room that measures 1,680 square feet. A room of this size would accommodate approximately 150 people. The goal for the new library is a meeting room that will accommodate from 250 - 300 people. In addition to “generic meeting space,” the library also wants to add a computer lab that would accommodate up to 20 library patrons, and a storytime room for up to 60 parents and children.

- The goal for library program and public meeting space is 300 seats.

### **Library User Survey**

In 1999, the library conducted a survey of patrons entitled the *Haverford Township Free Library Usage Survey*. There were a total of 240 responses. Of the respondents, 146 (61%) came to the library to check out materials, 40 patrons (17%) came “just to browse,” and 35 (15%) came for reference. The remaining responses were as follows: Use electronic information 15 patrons (6%), attend a library program 10 patrons (4%), use the copier 9 patrons (4%), read periodicals 1 patron (<1%), obtain tax forms 1 patron (<1%), and perform word processing 1 patron (<1%).

It is important to determine the municipality from which patrons originate (home library). During this survey period, 189 (79%) were from the Haverford Township Free Library, 13 (5%) were from the Upper Darby facility, and 9 (4%) were from Ludington/Lower Merion. The remaining respondents (1 each/<1% each) were from Marcus Hook, Lansdowne,



Sharon Hill, Springfield, and Marple. There was one Access Pennsylvania patron.

Respondents to this survey indicated that 166 (69%) patrons drove, 56 (23%) walked, and 1 (<1%) took public transportation. For those who drove, 121 (73%) parked in the lot, 21 (13%) parked on a side street, and 19 (11%) parked on Darby Road. Of those surveyed, 139 (58%) came directly from home, 28 (12%) were coming from school, 20 (8%) from work, and the others were coming from various places including church, shopping, music lessons, errands, the bank, and the post office.

The location of the future HTFL has been a very sensitive and critical topic of discussion. A related question was asked regarding the potential support for a move to the Haverford State Hospital site, which is located at the edge of the township. 132 respondents (55%) indicated that they would decrease their use with such a move, 19 (8%) indicated that they would increase their use of the library, and 55 (23%) indicated that their use would stay the same.

With respect to use of the adult and children's areas of the library the split was 176 (73%) and 56 (23%), respectively. Frequency of use was also examined, with 86 patrons (36%) coming "on a regular basis," 74 (31%) coming weekly, 24 (10%) coming monthly, 14 (6%) coming daily, and 11 (2.5%) coming only when a project is due.

Satisfaction was high, with 200 (83%) indicating they were satisfied and 11 (5%) stating that they were not satisfied. There were a number of comments made by patrons who completed the surveys. The comments that related most directly to the facility itself addressed the need for more parking, and there was one comment relating to the need for a "discussion room" for group study purposes. There were many comments

expressing concern about the potential move to the Haverford State Hospital site.

Note: Responses expressed in percentages above are the responses divided by the total number of surveys. In some cases, no response was provided, which explains why the percentage does not necessarily total 100%

### **Shortcomings of the existing facility**

- Parking is limited to 17 spaces and is grossly inadequate. Lack of parking has become a deterrent to patrons who would otherwise frequent the library. This also creates a safety problem when children are dropped off on Darby Road, which is very busy.
- There is not enough space for the library's collection of approximately 128,000 volumes.
- The Reference section has outgrown its currently allocated space.
- The Young Adult section is makeshift, especially in terms of technology connections. Its size is not adequate.
- Sound carries throughout the building.
- The division of a two story facility with adult and juvenile functions on separate floors is seen by many as problematic.
- There is limited comfortable seating.
- Lighting is poor.

- Storage areas are inadequate.
- Library stacks are very high. Lower stacks are desired.
- The program room is viewed as too cavernous. Better space is required for the effective presentation of library programs.
- There are no private, quiet areas for tutoring and literacy training.
- The building is not fully handicapped accessible.
- The staff work areas are inadequate.
- Lack of space precludes the library from being able to adequately display and market its collections.
- Technology wiring is makeshift, with visible and unsightly wiring in many places.

### **Public Libraries Today**

Libraries have undergone tremendous change in the past several decades. The emergence of new technologies has caused libraries to run “parallel systems” of traditional services and new, innovative services. It is important to maintain a careful balance of the new and the traditional.

While some persons question the future of the public library, there is no doubt that libraries and library facilities are here for “the long run.” The question that often gets asked pertains to defining the library of the future. The answer would have to be one that is fluid in nature, as the role of libraries continues to change.

Libraries will always be a place where people visit to learn new ideas, have new experiences, and increase their knowledge base. The library facility should be one that inspires the user and creates frequent “repeat business.” The design of the facility plays an important role in this process. Libraries have learned an important lesson from businesses such as Barnes and Noble and Borders Books, which have successfully employed attractive stores with displays, programs, cafes, and other features that are appealing to the public.

### **The Site**

There is not a site selected for a new library. One of the most significant challenges to overcome is the lack of parking at the current building. Comments regarding parking made during the consultant’s visit included:

*“There is no way to solve the parking issue here.”*

*“Don’t fool with the neighborhood for parking.”*

During the interview process, there were a few site options mentioned. The Manoa Shopping Center was brought up as a site to keep in mind should the opportunity present itself. The center is located at the intersection of West Chester Pike and Eagle Road. Specifically, the library has considered whether or not the Burlington Coat Factory location might be one to consider for an expanded library. Since this is leased space that may not be for sale, this might preclude the library from considering such an option any further.

Another site that has been mentioned is the Philadelphia Chewing Gum Corporation facility in Haverford Township. The corporation has recently

been sold and the property may come up for public sale. The building, located at North Eagle and Lawrence, is approximately 200,000 square feet located on approximately 8 acres of land.

There is a brownfield “superfund” site in the Township that might be considered. At the present time there is a pending agreement with a developer to build a mini-mall at this location. The library may want to contact the EPA and the potential developer to determine if there might be potential for the library to be a part of this development.

### **General Requirements**

The library will feature a wide range of collections for all age levels, with a capacity for 177,505 items. Seating for 240 persons will be provided (excluding the computer lab, storytime area, and main meeting room). Space will be provided for library technology, under which 43 public terminals will be able to be placed throughout the facility.

There will be a need for a multipurpose/program room, as well as a smaller room for storytimes and other library programs and meetings.

There are a number of very important considerations in the design of a new library facility:

- A single story design is preferred for staffing and security efficiency.
- Line of sight from staff to public areas is very important.
- Adequate space for queuing of library patrons at the circulation counter, including patron traffic in front of the counter is critical.

- Perimeter shelving is very efficient for housing library materials. This needs to be balanced with the use of windows on perimeter walls. Shelving units traditionally run in sections of three feet wide (and multiples of three feet). One way to strike balance in this regard is to allow for 42” high (45” clear) from carpet to the base of windows. This allows for lower shelving in window areas.
- Spacing of building columns must be done in such a manner not to interfere with placement of library shelving. In runs of library shelving, aisle spaces should be a minimum of 36” although 42” is preferred.

### **Building Exterior**

The building should be inviting to the patrons as well as prospective patrons. Design elements that attract the curiosity of the passer-by should be employed. The concept of form follows function should be accounted for, and the design must fully allow maximum functionality of the interior spaces.

Wherever possible, it is recommended that the building be of single story construction. This allows for the maximum efficiency of staffing

The exterior should be designed in such a way that facilitates the ease of maintenance and keeps maintenance costs minimized. The possibility of building vandalism should also be considered in the selection of exterior features, finishes, and materials.

Windows should be of low “E” insulated glass and as energy efficient and maintenance free as possible. Libraries often employ large window areas to maximize natural light and aesthetics. This is often seen as counter to the desire to maximize perimeter wall space for library materials and

displays, so a logical balance needs to be maintained relative to these issues. Glare and heat loss are also important considerations. Many buildings constructed today have windows that do not open and cannot allow fresh air in on days that would make this a desired option. However, consideration must be given to the plusses and minuses of windows that open. Security can be a major consideration for having windows that do not open. If any skylights are utilized, they must be well insulated and resistant to leaks.

The library has expressed interest in developing some interesting outdoor space for use for library functions as well as for public and staff enjoyment. This would include a “green area” and a plaza for library programs, concerts, and related activities.

There should be bike racks on the grounds of the library.

### **Main entry/Lobby**

The main entrance to the library will be the main point of patron access. The vestibule or the Circulation lobby area should contain bulletin boards, directories, and, possibly, benches. A mat that removes as much dirt and soil as possible should be installed in the lobby area. The path from the parking area(s) should provide maximum shelter where possible. Canopies by the front entrance and along walkways should be considered. Automatic doors should also be considered in the main/handicapped entrance to the facility. Patrons should be able to readily determine the locations of critical areas from the main entry point: Circulation Desk, Reference Department, Young Adult area, and Children’s Services/Junior Room (hereafter referred to as the Children’s Suite).

### **Building Interior-Proximity**

The Circulation Area needs to be a main focal point in close proximity to the main entrance. This provides an immediate identification of the primary service area for patrons entering the library. Conversely, it allows staff to monitor the main point of ingress and egress. There should be only one public entrance.

The Circulation Workroom and the office area for the Circulation Supervisor needs to be located immediately adjacent (behind) the Circulation Area/Circulation Counter. This workroom needs to provide privacy for staff and volunteers, however persons using this room need to be able to view the activity occurring at the circulation counter. This serves both as a service and security issue, and allows staff to quickly “pitch in” when the desk becomes busy. The office for the Adult Circulation Supervisor can be located within the workroom area. The work area for the Patron and Collection Maintenance position should be contiguous to this area.

The Children’s Suite needs to be quickly identified by patrons as the area that serves children. It is very important that there is sound isolation of the Children’s Suite from other portions of the library. Libraries are no longer the quiet places that they once were, and children are “designed” to be noisy. In many libraries that the consultant has visited, the architect underestimated the travel of sound from the Children’s Suite. It is not unusual for the children’s room of a library to employ a theme. However, it is very important that any theme chosen is not one that would quickly become dated. Additionally, some theme recommendations include the use of characters and topic that are copyrighted, and proper clearances are important in these cases. A family or unisex bathroom is recommended in close proximity to the Children’s Suite. The Children’s



Suite also needs to include the office for the Children's Librarian and the storytime room.

There will be a separate Reference Service Desk in the new facility that should be in close proximity to the main entrance and distinct from the circulation desk. This desk will be located within the reference collection and within proximity to the adult non-fiction collection. The Reference Workroom needs to be located behind the Reference Service Desk in order to allow staff in this workroom to see if help is needed and to quickly pitch in when necessary. The office for the Head of Reference needs to be located within this complex, but still contiguous to the "office pod" area. The computer lab should be in close proximity to the Reference Area and the Reader's Advisory office should be located in proximity to the adult non-fiction and fiction collections.

The computer lab should be located in close proximity to the general reference areas for easier supervision.

The Program Coordinator should be located in proximity to the core of the office pod area.

The Young Adult Area and YA Librarian's office should be fully separate from the children's and adult areas, and have its own unique identity.

Some libraries prefer to place a Quiet Study Area within the library. The Haverford Township Free Public Library has indicated interest in this feature, which should be in the adult area, and feature glass for visibility and security.

The Administrative Office complex will include the Library Director's office, the Reception Area (including the Administrative Assistant),

Bookkeeper's work area, and the small administrative conference room. Contiguous to this complex would be the mail room and staff lounge area. The "office pod" concept dictates common office support functions and equipment such as photocopier(s), scanner(s), and high resolution color printer(s).

The Technical Services functions (Technical Services workroom and Technical Services Department Head), ILL area, and programming office need to be configured contiguous to the "office pod" area.

The large community/multipurpose room is a feature that could be used by groups separate from posted library hours. In some cases, libraries do not choose this option due to security and staffing concerns. In some cases, libraries choose this flexibility. Should this be the case, the meeting room and accompanying rest rooms can be located in an area that allows the balance of the library to be secured separately from this area. In terms of the library security system, there might be a subsystem of the security system to serve this area. The library will need to discuss the implications of either choice and make a decision on this issue.

The staff lounge is an important feature of the library. In some cases, a small to medium-sized kitchen is designed to service the staff lounge as well as the multipurpose/community room. It is possible to have two separate kitchens, but one is obviously a less expensive, more economical option.

### **Building Interior – General**

Security issues are important, making line of sight from staff to public areas an important consideration. As book stacks comprise a majority of space within library walls, the placement of interior columns is quite important. Columns should be placed in a pattern that accommodates

aisle spacing for book stacks. Similarly, lighting for the general areas should be designed in such a fashion that reorienting book stacks at a future date would not compromise the lighting that is needed.

Limiting the number of interior partitions, while maintaining isolation where necessary is an important balance. The building should be designed with the assumption that interior changes might occur in the future. Minimizing interior load bearing walls is an important issue within this concept.

As will be detailed under the technology section of this report, flexibility in the placement of computers will be quite important in the design. As quickly as libraries add public workstations to the library, patrons make use of this technology and expect even greater numbers of terminals to address the need. While the library might begin with a lesser number of terminals than its maximum/ultimate number, electric power and chases for conduit will need to be maximized. In some cases, a power floor might be considered in select areas of the library. Another option, which is getting widespread use in new library construction is the creation of a wireless network.

Interior maintenance concerns are as important as exterior concerns. Materials used on the interior should be highly durable, as patron traffic can readily take its toll on carpet, vinyl, paint, wall-coverings, and other furnishings and equipment. Interior maintenance also covers such seemingly simple processes as light bulb replacement and window cleaning. It is a fact that many libraries now in service did not pay sufficient attention to this feature, making the simplest of maintenance tasks a chore.

### **Building Interior – Conceptual Idea – Barnes and Noble/Borders**

The concept of a Barnes and Noble/Borders Books approach is often discussed when designing new public library spaces. This is an idea that has been implemented in many libraries nationally. The following quote on this approach are from Maurice Freeman, President of the American Library Association: *"The idea of the library as being a sanctified place is more in the mind than in the fact. The stereotype of the old maid with the bun saying 'sssh' is something librarians have been trying to destroy for decades upon decades. Libraries want to give the best service possible,,and if service in the year 2002 means coffee bars and different attitudes toward food and drink in the library, so be it."*

This concept has been implemented in various degrees in public libraries. On the most minimal level, libraries have implemented volunteers with coffee and Danish cart in the library at certain times of the day. The Indian Valley Public Library (PA) has taken an interim level of this concept. An adult reading area has been designated as an area in which to enjoy refreshments. The floor is tile, and a high-end series of coffee and snack machines have been installed for patron self-service. The refreshments may not be taken out of this area. Some libraries have put in a fully staffed coffee shop. Some of these are staffed by Friends of the Library or volunteers, while others have been bid out and subcontracted/leased to other vendors. On the most comprehensive model of this concept one would find the "full blown" coffee and food shops of the Barnes and Noble or Borders.

An idea that is tangential to this is to add Internet PCs into the mix and make a true Internet Café concept. This would allow parents and caregivers of children at programs a place to relax, enjoy a beverage, and read or use the Internet. A mix of comfortable seating should be included in this area.

The Haverford Township Free Library will need to determine the extent to which they would want to implement this concept.

### **Children's Services**

This area will serve the library's young patrons and will include books, magazines, audiovisual materials, computer software, and, possibly, games, toys, puppets, and puzzles. The character and appearance of this portion of the library should be different from the other public areas of the library and easily identifiable as a place that is attractive and inviting to children. A thematic design might be considered, however any theme chosen should be one that would not quickly become dated.

The juvenile print and non-print collection capacities will be 41,825 and 3,767 volumes, respectively. This will consist of a mix of tables and seating. Shelving and furniture to house and display print and audiovisual materials will be integral to this area and should be designed with children in mind.

Children are naturally noisy, and considerable sound will originate from this area. It is important that the design addresses the need to provide a sound barrier between this area and other parts of the library, while maintaining good visibility to and from this area. Safety features should include safe electrical outlets, sturdy shelving units without sharp edges, and tempered glass. Seating for 50 children should be provided. An area for parking baby strollers should also be provided.

A story area room with a capacity for up to 60 children and adults will be located contiguous to this area.

Abundant display space should be included in this area.

The children's area will require a storage area separate from other library storage areas.

### **Young Adult Services**

Young adults are a very important population segment that is often ignored in library services and in library construction. The implementation of separate Young Adult (YA) sections in a library has been experiencing a resurgence in popularity. The Haverford Township Free Library views the creation of a larger and dedicated YA area as something that should occur in an expanded facility. The current YA section was created by appropriating popular space from the adult area. Connections for technology were impossible to accommodate in the current location, given the configuration and setup of the existing building.

Young Adult departments generally serve patrons from seventh grade until adulthood. YA collections need to be housed in an area separate from the juvenile and adult collections. The area needs to contain features that clearly identify it as an area for this specific age group. A variety of furniture and seating should be employed. Implementation of listening stations for music should also be considered. It is projected that there should be 30 seats in this area. This should be a mix of types of seating. 5 Internet/library catalog terminals should be placed in this area, housed in individual study carrels. The YA collection will have a capacity of 1,775 items. Current periodicals of young adult interest should also be placed in this area. Abundant display space should be included in this area.

### **Adult Services**

In addition to the stereotype of an area where patrons search for library books, the Adult Services area should include an area where library

patrons can “kick back” and enjoy reading and relaxation. This includes a variety of seating options, including seating at tables, seating at carrels, and seating at lounge furniture. It has been found, however, that adults often do not like to share lounge seating that has capacity for more than one person (love seats and couches). For this reason, it is often more efficient to have single-person lounge seating rather than multiple seating.

Adult Services offered at the library will include fiction, nonfiction, and audiovisual collections (CDs, DVDs, books on tape, books on CD, and videos). Capacities for the print and non-print collections will be 119,600 and 10,438 cataloged items, respectively. Current periodicals and newspapers will be offered. The audiovisual areas and the periodical/newspaper areas should be clearly defined within this section.

Technology will play a major role in the library, with terminals for Internet access, access to commercial databases (including the *POWER Library*), and to the patron access catalog. The adult area will include 22 library catalog/Internet workstations. Space for printers will need to be provided at the station locations or in a centralized location.

There will be a need for 100 seats in the adult sections of the library. Seating will include a combination of seating at tables, seating at study carrels, and individual lounge seating. 20 of these seats will be in the Quiet Study area.

The adult area will also include a current periodicals and newspapers area as well as limited storage for back issues. Lounge seating is recommended in these areas. There will also need to be several alcoves that would allow for one-on-one tutoring. The quiet study area should be located within this adult services complex.

Abundant display space should be included in this area.

### **Reference Department**

The Reference Department consists of two space components. The first component includes collections and service areas in the public portion of the facility. The second component includes the necessary work spaces behind the scenes and out of public view. The latter is covered in the office area section of this report.

In the current library, the Reference function often has 1 to 3 people sharing space on the public floor at one time. The current reference area has a main reference desk with 2 computers (1 for circulation only). There is an additional desk behind and to the side of the main desk which is used by at least 2 people for various tasks. This includes reading reviews, organizing computer classes, and other departmental functions. There is also a long table with 3 word processing computers. The new library requires a distinct and better configured reference area.

The Reference Desk should be readily seen by patrons entering the library. The desk should be low to avoid the sense of barrier or intimidation for patrons. The Reference workroom should be located contiguous to the Reference Desk.

The reference service area will need to accommodate no less than two staff members at a time. There will need to be 2 computer workstations, 2 printers, and 2 telephones (possibly portable). Space will need to be provided for the "Ready Reference" collection. The total reference collection capacity will be 7,750 volumes.



## **Circulation Area**

The circulation desk will be an integral component of the circulation area and should be placed in proximity to the main entrance to allow for immediate patron contact by staff and to provide the public a clear initial focal point when entering the library. This will allow visibility of the main entrance for security purposes. Checkout and check in of library materials will occur at this location. It is important that the checkout and check in areas are clearly delineated. Patrons should readily be able to determine the major service function areas of the library while in this location.

Capacity for 6 circulation terminals will be required at the circulation desk, although 4 would be initially placed. Generally, there will be 3-4 circulation staff on duty at any given time. Adequate space for receipt printers, scanners and related equipment must also be provided. Space for computer keyboards and supplies must also be provided. The library should provide space for a cash register.

The new circulation desk must contain a transaction component of sitting/wheelchair height to provide service to patrons in wheelchairs and to accommodate children.

There will need to be an area in close proximity to the desk (with a writing surface) where patrons can sit down to complete library registration forms.

The location of the circulation desk must allow adequate space from the entry doors to the library to provide for queuing of library patrons. At times, there can be many patrons waiting to be served, and it is important that enough space is provided for waiting patrons, patrons and staff who need to get by, and for book cart movement.

While there are many manufacturers of turnkey circulation counters for libraries, custom millwork as part of the general contract can often cost considerably less than the off the shelf units. Custom millwork also provides the opportunity for the library to work with the architect to articulate needs specific to their library rather than receiving a generic approach.

Some libraries have installed rubber flooring in the staff areas behind the circulation desk to provide for better foot comfort for those who stand a majority of their workday.

Space must be provided in the circulation area for the “parking” of several book carts, and for books staged for shelving. Space should be provided for these carts in this location (behind or beside the desk in a non-public area) or in the Circulation Workroom. Of course, when carts of books to be shelved are staged in public areas, patrons often are attracted to them, reducing the amount of items to be shelved.

The library might also consider a self-checkout station (or stations) in the general circulation area at some point in the future. With such a station, library patrons scan and check out their own materials. Compatibility with the library materials security system is essential if this option is selected.

### **Circulation/General Staff Workroom**

There are a multitude of support tasks for the circulation function that must be supported by a sufficiently sized and configured circulation workroom. The functions identified include:

- Routing items to appropriate libraries

- Troubleshooting needs of specific items to be sent to Technical Services.
- Cash register transactions.
- Allocating items to specific carts for shelving.
- Making phone calls to pick up items on hold.
- Entering and deleting holds from the circulation computer.
- Verifying patron information on the registration cards in the circulation computer.
- Staff instruction on general procedures as well as performance evaluation (Note that confidential personnel transactions would not occur in the circulation workroom, but will occur in other private meeting areas that will be provided in the new facility).

The workroom should be located contiguous to the circulation desk and provide staff line of sight to the desk. The workroom should provide sufficient space for four staff desks/workstations as well as space for personal computer workstations, printers, and counter space or a work counter for various behind the scenes activities. Storage should include shelving, cupboards, and counter space. A small sink should be included in this area.

### **Staff Workspace**

Other portions of this report articulate where specific offices should be located. This section provides more in-depth information regarding these office and workspaces.

There is a general vision regarding the configuration of office space in the new facility. The library offices: (Administration, Technical Services, departmental offices, and general office support (copier, and related office equipment) should be in a “pod” type arrangement, so that all are within

close proximity to each other within a common area. This should also allow for a centralized location for shared use of key office equipment such as photocopier(s), scanner(s), and printers.

There is a desire to have a shared conference room for Board meetings, staff meetings, vendor visits, etc. This room should accommodate up to 40 persons. Space should be provided for no less than 3 modular tables. A closet or storage area for this room should accommodate up to 40 stacking chairs and 6 folding tables. This conference room should be located in close proximity to the office pods.

The individual workspaces mentioned below touch upon telephone requirements in very general terms. Specific details will need to be reviewed when the library is ready for construction of its new facility. This will include the number of unique extensions, voice mail, portable phones, battery backup and other such specifications and features.

Staff will require appropriate software to accommodate their needs.

Library Director: A private office is to be provided for the Library Director (Adeline Ciannella). Primary position (full time) responsibilities include:

- Overall administration of the library.
- Directs maintenance of buildings and grounds, including recommendation of studies, construction, and renovation.
- Prepares annual budget and monitors monthly and annual budgets.
- Develops, recommends, implements, and evaluates short and long-range planning.

- Supervise and evaluate Department Heads and Administrative staff.
- Develops and recommends policies and job descriptions.
- Develop, participate, and maintain positive relationships with the community, schools, businesses, government, staff, and volunteers.
- Evaluates library services.

Space must be provided for a desk and chair, PC workstation with flat screen monitor, and printer. The desk needs to be large enough to hold the computer monitor (with the hard drive cabinet on the side). There will be a printer and scanner stand on the side.

The office space must contain an area of sufficient size to accommodate a small conference table with 5 chairs. File cabinets will be included in this office (6 linear feet of width).

A telephone must be provided. Approximately 12 linear feet of shelf space is needed for books, periodicals, and other publications. There should be a telephone table, a coat rack and an umbrella stand/rack.

Proximity: The library offices (Administration, Technical Services, departmental offices, and general office support (copier, and related office equipment) should be in a “pod” type arrangement, so that all are within close proximity within a common area.

Administrative Assistant/Office Manager: Terry Carr works full time in this position. Primary position responsibilities include assisting the Director in all aspects of running the library, and to insure that the library routine runs smoothly on a daily basis.

A private office area is required. This office will have two office doors, one that opens to the Director's office and one that opens into the public portion of the library.

Furniture requirements include a desk (with side return) with three standard drawers and one large file drawer. In addition to a desk chair, two chairs for office visitors are required. A table is required for general work projects including report collation.

Equipment requirements include a PC with flat screen monitor and a printer. Other office equipment will include an adding machine, a copier/fax machine and scanner. Some of this equipment could be shared in a common administrative office equipment area.

Bookkeeper: Marie J. Juliana works full time as Bookkeeper. Primary position duties include the daily clearing and setting up of the circulation desk cash register, settlement daily receipts, payment of bills, and general financial management including balancing of the operating account. A private office is not required, however, due to the nature of the work of this position, privacy and security will be an important factor. Individual computer and printer requirements include 1 PC and 1 printer. In addition to a desk and chair, this staff member will have 1 filing cabinet (5 drawer-3 ft.), printer stand, and one side chair. In terms of individual shelf storage requirements, this staff position requires a closet (at least 3 feet wide) with 5 shelves of 18 inches each. A phone line with a unique extension is needed. There are no shared requirements noted. This office needs to be in close proximity to general library files.

Head of Reference Services: Sue Vision works full time as Head of Reference Services. Position responsibilities include supervision of the Reference Department, ordering of books, answering reference questions,

scheduling, organizing displays, special projects, planning. And budgeting. A private office is required for this staff person equipped with 1 PC and a printer. Individual furniture requirements include a desk, desk chair, 2 side chairs, one small file cabinet, and a small work table. Individual shelf storage requirements include 6 linear feet of shelving. This office needs to be in close proximity to the Reference Department, Reference Workroom, and reference collection. This office area could be incorporated into the Reference Department workroom space (but requires space above the general workroom calculation).

Reference Department Workroom: The Reference Department will include a number of staff members who will need shared office space. Volunteers also work on various reference projects. A reference work area with two tables (one round, one rectangular) will be needed. Additionally, there needs to be one computer workstation. These two workstations can be individual desks. There should be a couple of carrels to serve as additional work areas. This work area needs to be in close proximity to the public Reference Department and situated in such a manner that allows line of sight from the reference work area to the public area. In this fashion, staff in the work room can readily monitor the need for additional staff assistance in the public area and can readily move to the public area.

Reference Librarian/Reader's Advisory Librarian: Jill Thomas works full time as Reference Librarian/Reader's Advisory Librarian. Primary job functions include reading reviews of and ordering library materials, staffing the Reference Desk, organizing displays, working on special projects, planning, staff training, and budget preparation. A private office is required. This staff person requires a desk, chair, small filing cabinet, computer tables, a computer, scanner, and printer. Individual shelf storage requirements include shelving for current projects, books,

journals, and other materials (108 linear feet). A telephone, preferably portable, is required. This office area could be incorporated into the Reference Department workroom space (but requires space above the general workroom calculation).

Intra and Interlibrary Loan Librarian: Joanne M. Cahill works full time as Intra and Interlibrary Loan Librarian. Primary position responsibilities include processing incoming and outgoing ILL requests for library materials, newspaper clipping, and assistance with library program staff. A private office is not required. A computer and printer, including Internet access, is required. A desk, chair, work table, and printer stand are needed. 9 linear feet of shelf space is needed for ILL supplies, and 18 linear feet for ILL materials. A file cabinet and a telephone are required.

Program Coordinator: Kathleen Mulhearn works full time in the position of Program Coordinator. Primary job functions include finding, contacting, and booking speakers, and designing booklets, brochures, posters, and bookmarks. Preparation of library displays and serving as back-up to the ILL Department are additional functions of the position. Equipment needs include a PC with catalog and circulation access (Millenium III). A color printer capable of printing letter, legal, and banner sizes is required.

Furniture requirements include a large desk with room for the computer, printer, and large scanner (or a smaller desk with separate furniture for the PC, printer, and scanner). In addition to an ergonomic desk chair, one side chair is required. A file cabinet (2-3 drawers), one small desk for non computer work, and one large work table with chairs is required. Shelf space is needed for books related to future programming, ILL materials, and items collected for displays and programming.



Technical Services Department Head: Christine Faris works full time in the position as Technical Services Department Head. Position responsibilities include supervision of the Technical Services Department, including ordering and tracking of library materials, preparation of statistical reports, computer training, and reference staffing. A private office is required with clear line of sight to the Technical Services work area. A PC and monitor, desk, desk chair, and computer and printer stand are required. Room for 1 filing cabinet, a shelving unit, a work table, and 2 side chairs are needed. A total of 18 linear feet of shelving is needed.

Technical Services Work Area: The Technical Services Department will be shared by 4 staff members (including the office area for the Technical Services Department Head). The room that presently serves this function is approximately 500 square feet. Presently, this department utilizes 2 Millennium/database computers and 1 general computer with Internet access. An additional computer is needed in the new facility.

Shared furniture requirements in the current work area include the following: 1 desk and chair for 2 staff members, computer tables for 3 computers, printers and hard drives, worktable for covering books, processing materials, and book repair. There is a large screen television for reviewing video recordings and DVD's, an audiocassette and CD player with speakers for reviewing and repairing broken materials, and a large AV stand to house these components.

Shared shelf space requirements include 36 linear feet of storage for books and materials collections for displays, outreach senior projects, catalogues for use in collection building, and professional materials. Open shelving requirements include 64 linear feet for unprocessed

materials, including new books, AV, donations, bindery books, materials for repair, and materials awaiting classification.

There should be shelving above the computer work areas for storage of manuals, paper, and other supplies. Technical Services will also need a minimum of 64 linear feet of closed storage for book processing supplies, catalogs, and general storage.

Young Adult Librarian: Deborah Purdy works full time as Young Adult Librarian. Position responsibilities include collection development for YA materials, program planning for young adults, preparation and release of press releases for all library programs, and development and maintenance of the library's website. A private office is required. Individual computer and printer requirements are as follows: Computer, color printer, and scanner (might be shared with other departments). Individual furniture requirements are as follows: desk, chair, printer stand(s), scanner stand, filing cabinet, and a work table (for creating signs, displays, and other items for young adults). The monitor can be on a desk provided that there is sufficient space to still use the desk effectively. 9 linear feet of shelf space is needed for individual storage. 15 linear feet of shelf space could be shared with adult programming.

Children's Librarian: Patricia Evans works full time in the position of Children's Librarian. Position responsibilities include children's programming, children's collection development, scheduling Junior Room staff, visiting schools and conducting tours of the library. A private office is required. Individual computer and printer requirements are a PC, printer, and scanner. Individual furniture requirements include an "L"-shaped computer desk, desk chair with arms, 2 side chairs, 3 four-drawer filing cabinets, a cabinet with doors for craft items, and one 6-

foot work table. This office area should be in proximity to the Children's Suite and children's work area.

Children's Work Area: Space should be provided in close proximity to the Children's Suite for general work by Children's staff members. This work will include program preparation and general office duties.

Adult Circulation Supervisor: Donna Jones works full time in the position of Adult Circulation Supervisor. Position responsibilities include management and supervision of adult circulation staff, troubleshooting problem situations in the circulation function, and working in cooperation with the Director and other library staff. Individual computer and printer requirements include a PC and 1 color printer. Individual furniture requirements include 1 desk with extended space for a computer and printer, 1 desk chair, 2 side chairs, and 2 filing cabinets (with 2 drawers each). A credenza with file drawers is preferred. Individual shelf storage requirements are 21 linear feet. This office should be house within the Circulation Workroom area.

Patron and Collection Maintenance: Judy Turnbull works full time in the position of Patron and Collection Maintenance. Position responsibilities include preparation and processing of: daily video lists, overdue notices, bills, collection inventory, and verification of patron and items codes. A private office is not required. Individual computer and printer requirements include a Millennium circulation computer, a second PC, and a laser printer. Individual furniture requirements include a desk and chair, 2 side chairs, a file cabinet, 2 work carts. This function should be located within or contiguous to the Circulation Workroom complex. A private office is not required, but a separate workspace is necessary.

Miscellaneous: There needs to be a location contiguous to the general office pod and staff lounge where staff mailboxes and staff notices will be located. A staff shower should also be provided.

### **Delivery/loading/shipping area**

Libraries typically have an appreciable volume of shipping and receiving of library materials and supplies. The Haverford Township Free Library receives deliveries regularly from the Delaware County Library System courier, as well as from standard commercial services such as U.S. Mail, UPS, and similar carriers.

While a loading dock will not be required, the new library design should give consideration to a separate delivery entrance. Such an entrance would have easy access from library parking and would access a non-public area in close proximity to the Circulation Workroom. Attention should also be paid to providing suitable space for the staging of materials readied for shipment as well as for the receipt of deliveries of library materials and other items. This would occur in the Circulation Workroom.

### **Library technology**

Technology has brought with it endless changes to the way library service is delivered to users. Any new construction must take many factors of library technology into account. Computers, printers, and other peripherals are located throughout the building in staff and public areas. These devices are generally networked together, necessitating adequate provision for telecommunications wiring.

It is strongly advised that conduit and other avenues for concealed wiring are provided in areas that will not only serve present need but will also meet future needs. Flexibility is the key. The number of nodes, hubs, or

ports comprising the network should be capable of being doubled or tripled without major change to the basic configuration or extensive rewiring. A wireless network should be considered.

A computer closet should be provided to allow for proper placement of computer equipment (HUBS, routers, punch block, etc.). This closet should have its own temperature control given the amount of heat typically generated by this critical computer equipment,

Adequate power for technology is also a necessity. Surge protection must be considered, in computer service only or as a main panel component. Workstation areas should be configured with enough space to accommodate collaborative use between the public and library staff.

Computers require both power and telecommunications connectivity. In addition to computers supplied by the library in the library, patrons will bring in laptops, and will expect connectivity to the Internet. Therefore, power and telecommunications connections should be abundant throughout the facility.

During interviews with board and staff of the Haverford Township Free Library, a key phrase was expressed: “We need to think technology throughout the new building.” There were additional comments about consideration of a wireless network throughout the building as well as consideration as making as many seats and carrels “hot” for technology connectivity.

It is recommended that the library engage the services of a technology consultant to review its final plans.

Public photocopiers should be located in close proximity to the Circulation Desk and Reference areas.

### **ADA considerations**

All building design of the new library must incorporate the Americans With Disabilities Act. This includes, but is not limited to seating, aisle width, service counter heights, parking, signage, and more. In order to comply with ADA, entrance doors must have a “pull weight” that is quite low. In some cases, this can cause doors to blow open. Oftentimes, automatic doors will be employed in order to accommodate ease of opening for persons with handicaps and parents pushing children in strollers. Such an approach should be considered.

### **Compliance with Local, State, and Federal Codes/Regulations**

It is critical that the library design and construction fully complies with local, state, and federal codes.

### **Electrical Outlets**

An ample number of electrical outlets must be provided for wall and floor-mounted receptacles. Outlets should contain childproof devices for safety purposes. Some outlets will be utilized for sensitive computer equipment, while other outlets will be used for convenience items such as vacuum cleaners and other maintenance equipment. The electrical system must be designed and segregated appropriately for these varied purposes.

### **Emergency Power**

The library will need to determine whether or not it wants emergency power beyond that required to allow patrons to safely exit the library during power outages. Some public libraries have included emergency generators for occurrences of power outages. This is not an inexpensive

option in terms of cost and maintenance and the trade-offs must be considered.

### **Floor Loading**

Libraries require a live load capability of no less than 150 pounds per square foot to accommodate the significant weight of books and other library materials. A live load range of between 150 and 200 pound per square foot is recommended.

### **Floor Covering**

The types of floor covering in various portions of the library will vary greatly. Libraries typically generate heavy traffic, and flooring must be very durable and easily maintained. Entrances should be equipped with appropriate mats that remove as much dirt as possible from one's shoes before they enter the library.

The type of floor covering will be determined by the function that occurs in that area. Vestibule areas, mechanical rooms, and storage areas. The library may want to use tile or sheet vinyl in the community and program rooms, as some areas will allow serving of food and drinks and the preparation of crafts. In some cases, high traffic areas are carpeted with a contrasting color to allow easier replacement once significant wear begins to show. Floors that are easily maintained must be provided in these areas. The areas that use bare cement floors (basement and certain storage and janitorial areas) should be sealed or painted to minimize dust.

The material used and color employed should be easily maintained and should not show dirt or wear readily. In the library stack areas (both freestanding and perimeter) carpet should be installed on all floor surfaces prior to the installation of library stacks.

### **Displays and Bulletin Boards**

The Haverford Township Free Library representatives stressed the importance of and desire for adequate display space. The library will want to have bulletin board space for library announcements as well as community events.

The use of wall-mounted or freestanding display cases will also need to be considered throughout the library. Display cases should be lighted. When a decision is made to employ display cases, the library is making a commitment to keep displays in place at all times. In some cases, libraries decline this option, as they do not have the staff or volunteer resources to maintain displays.

Display areas and bulletin boards will be a very important feature, and should be spread throughout the library building.

### **Art Display**

Libraries often are venues for the display of artwork done by school students, local artists, clubs, and other organizations. The Haverford Township Free Library should devote a portion of wall space and appropriate hardware and lighting for this purpose. In some installations, a gallery area is dedicated for this purpose. In more economical installations, existing wall areas are dedicated for this purpose. Oftentimes this occurs near the community meeting rooms where there is maximum exposure.

### **Interior Signage**

This is an aspect of public library building projects that often gets neglected. It is very important that an interior signage program is developed to effectively guide patrons through the building. This includes signage identifying service areas, departments, service desks, program



rooms, offices, restrooms, copier, etc. Signage must comply with ADA regulations.

### **Exterior Signage**

The library must be clearly identified with lighted exterior signage. Provisions must be made for proper electrical service to the proposed sign location. Local ordinances must be consulted prior to design of exterior signage. The library has expressed interest in exterior signage capable of electronically listing library events and programs.

### **Restrooms**

There should be adequate restroom facilities in the library. Changing tables should be available in these facilities. In addition to the typical men' and women's rooms, there should be a "family" (unisex) bathroom in close proximity to the Children's Area. This would allow a parent to accompany a child of either gender into the restroom.

A separate staff restroom (unisex) should be provided in proximity to the staff lounge area, but not adjacent to it.

There will be a need to have the ability to close off the balance of the library from the meeting/community room facility. For this reason, rest room facilities will need to be located within the meeting/community room complex. Dependent upon the ultimate building design, these could be the sole sets of men's and women's facilities, or it might be necessary to provide a separate set of toilet facilities.

### **Drinking fountains**

Drinking fountains should be provided on all public floors. Flooring around the fountains should be tile or vinyl, and no library materials

should be located in these areas to avoid any potential damage. Fountains should be located directly outside restroom areas.

### **Program/Meeting Rooms**

The current meeting room for the library is on the lower level. Some of the persons interviewed during the consultant's site visit commented that the current meeting space was too cavernous, was not flexible enough, and was not a warm, inviting place. This situation needs to be remedied in a new library facility.

Adequate program and meeting room space for libraries is critical. Proper sizing and flexibility of this space is equally important.

A computer lab/small meeting room with a capacity for up to 40 persons is desired. Monitors would be embedded within the tables with recessed keyboards.

A large meeting/multipurpose room that will accommodate up to 300 people is desired.

In this facility, a program room to accommodate 250-300 persons is desired. A soundproof divider to partition this room into two smaller areas with separate entrances should be considered.

The room should be pre-wired to allow for use as a computer lab when needed. A ceiling mounted projector should be provided, as well as a projection screen.

Use of meeting space in libraries ranges from one-on-one tutoring sessions, to large public and community programs. The flooring should be of a material that is easily maintained. A sound system should be provided for the program room. Lighting should be flexible to allow for

full lighting and low lighting for various audiovisual presentations. Flexibility for seating is equally important. Rest rooms should be located in close proximity to the meeting rooms, and a kitchen area that can serve the larger meeting room should be located in an adjacent space. Such a kitchen facility could also serve a staff lounge/break area. Consideration should also be given to a staff lounge/break area in this location.

Space should be provided for storage of stackable meeting room chairs on movable carts, as well as for meeting room tables. A telecommunications connection for computerized presentations. A lectern and sound system will be used in these areas. A storage closet for audiovisual items and supplies should be included. Coat racks for the public should also be provided. It is possible that the library might choose to use these rooms for computer instruction in the future. Adequate connectivity will be important. There is also the possibility that the room might be equipped with teleconference capability. Provisions should be made for this contingency.

### **Staff lounge/Break Area/Common Area**

A private room where staff members can take a break and or consume a meal will be required. Such an area should also contain a unisex restroom for staff convenience. Other amenities would include a refrigerator, microwave, sink with garbage disposal, icemaker, dishwasher, a coffeemaker, and, possibly, a stove. Adequate cabinet space will be required in this area.

Part of this space will include comfortable chairs and a coffee table. Other tables and chairs will be provided for staff eating their meals or taking a break. Vending machines will be placed in this area.

This area could share the kitchen with the meeting room, however it would be preferred if the staff has a separate small private kitchen area. Staff lockers should be placed in this area.

As part of the staff lounge complex, there will need to be a room adjacent to the staff room that will contain lockers, staff mailboxes, coat racks, and shelving for professional development materials (books, magazines, etc. for staff use).

The complex must also include a unisex restroom and a shower. For better privacy, these two elements cannot be located adjacent to the staff lounge, but should be adjacent the aforementioned mail room.

### **Sound System**

It is recommended that the library be equipped with a paging/public address system that can be heard in all areas of the building. This is an important consideration for informing patrons of general announcements and for emergency situations. The program/multipurpose room should also be equipped with a sound system suitable for library and public programs.

### **Security**

Security is a very important consideration. There are two different security systems in a public library, one dealing with library materials, and the other dealing with general security issues.

The library will want to continue its use of a library materials theft detection system. Provision should be made to provide the power to the entrance/exit areas for installation. The security “portal” (antennas) needs to be close to the Circulation Desk so that staff can easily monitor any breeches. All patrons exiting the building will need to pass through

the “portal” for security screening. The “portals” should be situated so that they are not too close to the front door and allow easy access by staff to patrons when a theft alarm might sound.

The other security consideration is the installation of a system to detect unauthorized entry into the building (motion sensors and door/window contacts). Such a system is in place at the current library. The library must include a system that includes smoke detectors and other indicators of fire that is connected to the local fire department for prompt dispatch of assistance. Generally, both systems (entry and fire) are integrated in one security system.

### **Lighting**

Lighting in a library setting can be quite complex. Books and other written documents held on a flat (horizontal) surface are illuminated by reflected light. Computer terminals utilize a vertical screen that emits rather than reflects light. Generally speaking, 100 foot-candles is an acceptable level of light for reading at desk level. Recommended levels include:

- Book stacks: 20-50 foot-candles
- Reading areas: 50-100 foot-candles
- Office areas: 50-100 foot-candles
- Restrooms: 10-20 foot-candles
- Vestibule: 10-20 foot-candles
- Meeting rooms: 20-50 foot-candles

Lighting stack areas can also be a challenging task, as it is desired that there is flexibility in the location and relocation of library book stacks. Tall book stacks are generally in the 84”-90” range. Other standard

heights include 66", 45", and 42". Minimum aisle widths are 36", although 42"-48" is recommended. It is recommended that ceiling heights are a minimum of 9'-10' high. If linear fluorescent fixtures are used and run parallel to the initial layout of the book stacks, any change in aisle or stack location will cause a significant problem with the lighting. In many cases, where linear fixtures are used, they are run perpendicular to the initial stack layout to allow for additions of stacks and changes to aisle width in the future.

Fixtures should be capable of being easily maintained, and should allow for ease of securing replacement parts. Exterior lights should provide security as well as aesthetic enhancement, and should be on a timer.

Emergency lights must be provided for times of power failure.

### **Heating, Ventilation, and Air-Conditioning**

Energy efficiency will be a major factor with any new building project. Additionally, climate control will have a major impact on a library. The major factors of climate control include temperature, humidity, and air circulation.

It is important to keep in mind that library shelving is placed in a wide variety of locations, including freestanding and wall-mounted to heights of up to 90". Placement of vents should be carefully considered so they do not interfere with book stacks and other furnishings. Attention should also be paid to the location of the HVAC units and air handlers, as to avoid excessive noise in areas where a quiet atmosphere is desired.

Thermostats must have day and night settings/timers. Such timers should be programmable, allowing staff to set temperatures higher or lower, as desired, during closed hours. The system should also provide

for “fan only” modes for circulation of air throughout the building at times when neither heating nor cooling is being “demanded” by the thermostats. Thermostats in public areas must have lockable plastic covers for security purposes.

Libraries often have many small offices where one thermostat controls several offices and other, larger areas. It is essential that uniform temperature control be maintained in all areas, regardless of size. It is most important that there are multiple zones to allow for flexibility and comfort.

### **Sprinkler system**

The library should consider a sprinkler fire suppression system, and will need to verify local code requirements to determine whether or not such a system is mandated. At minimum, the library must include a comprehensive smoke and fire detection system that is monitored on a 24-hour basis (through a security firm) and that is connected to the local fire and police departments.

### **Parking**

Adequate parking must be provided and maximized. Walking distances from the parking lot should be kept to a minimum. The safety of pedestrians is paramount, as there will be a large number of children utilizing the library. Pedestrian paths should minimize exposure to the vehicular areas of traffic. The parking lot should be well lit and provide for easy ingress and egress of vehicles.

There are various formulas that are utilized for calculation of parking, however it is important that local codes are consulted to ensure that local codes do not require more than the calculation. One calculation dictates one space for every 2 user seats. At 180 user seats (excluding

meeting rooms and the story time area), this number would indicate 90 spaces. Including the meeting room seating of 300 seats, the parking requirement would rise to 240 spaces. Adding in the capacity of 60 for the story time area would increase this number to 270 spaces. Another approach is to provide one parking space for every 300 gross square feet of space. This would indicate 143 spaces. Of this number, an appropriate number of handicapped spaces must be provided.

It is most important to indicate that local ordinances will impact these suggested numbers. Preliminary information from the Township (via Chris Heaven of Cicada) indicates that there are a number of zoning requirements that relate to parking. In terms of theatres, churches, and lodges, 1 space is needed for every 60 square feet. For office buildings, the requirement is one space for every 200 square feet. For uses “other than above,” the requirement is 1 space for each 1,000 square feet. It will be important to determine where the library fits into these requirements.

Parking areas can often be an unattractive feature of a building. It will be important that adequate landscaping and greenery is incorporated into this area. This will accomplish two important goals. It will work towards satisfaction of the zoning requirements for permeable surface and screening and it will also be an attractive feature.

### **Book returns**

It is necessary to have library materials returns accessible by the public from the outside of the building. It is typical to have one return for books and a different return for more fragile audiovisual materials. Oftentimes, the exterior returns are designed as drive-up returns and are designed into the parking lot area, away from the street traffic. Additionally, the returns should accommodate a standard depressible book return cart.



Some libraries prefer returns that are built into the building. In these installations, the room needs to be fireproof, as people have been known to start fires in such returns.

Unfortunately, people have been known to put unimaginable things into library materials returns and the architect needs to plan accordingly.

### **Drive-up window**

Some public libraries have employed the use of a drive-up window, not unlike those used in fast food restaurants and banking institutions. The library may wish to consider this unique feature. It would be useful for the Haverford Township Free Public Library staff to interview librarians who have installed this element into their buildings. One example in the area is the Allentown Public Library. A drive up window needs to be contiguous to the library's circulation area.

### **Coat racks**

Coat racks should be provided in staff, and the adult and children's areas of the building.

### **Miscellaneous storage**

Storage must be provided for bulky items such as seasonal decorations, stored furniture and equipment and other miscellaneous items. This storage area must be easily accessible. This is a very important feature for the new building. If the building includes an attic or crawl space, these areas could be used for storage as well.

### **Storage of Exterior Maintenance Items**

Unless the library contracts for exterior maintenance, there will be a need for storage of lawn and garden and related equipment and supplies at the library site. This is sometimes done with a detached building due

to considerations of fire safety for gasoline and other flammable materials.

### **External hose bibs**

An adequate number of external hose bibs should be provided for exterior watering and maintenance. The bibs should be recessed with lockable covers.

### **Landscaping**

Landscaping adds a major improvement to the appearance of the building exterior. Plant material should be well suited to the local weather conditions, and should be as durable and maintenance free as possible. Landscaping should not obstruct public access or public security.

### **Library shelving**

Adult library shelving can vary in height from the shortest of 42" high (3 shelves high, including base), to 66" high (5 shelves, including base), to 84" high (7 shelves, including base). Juvenile shelving is typically no higher than 66", with the easy and picture books placed on 42" high shelving.

Each standard shelf is 3' long. A single-faced 42" high unit has a maximum (full from edge to edge) of 9 l.f. A single-faced 66" high unit has a maximum of 15 l.f. and an 84" high unit has a maximum of 21 l.f. Typically, one should allow from ½ to 1 full l.f. per shelf as open space. A double-faced unit would have twice the capacity as a single-faced unit.

## **Proposed Table of Spaces**

### **Haverford Township Free Library**

<b>FUNCTION</b>	<b>APPROXIMATE NET S.F.</b>
Adult print collections: (111,600 vol. @10 vsf)	11,160 sf
Adult paperbacks: (8,000 vol. @ 10 vsf)	800 sf
Adult non print collections: (10,438 vol. @ 10 vsf)	1,044 sf
Adult periodicals/newspaper area	350 sf
Computer terminals (Adult) 22 @ 36 sf	792 sf
Adult seats: 80 @ 25 sf	2,000 sf
Head of Reference Services	150 sf
Reference/Reader's Advisory Librarian	150 sf
Reference Workroom	250 sf
Quiet Study Room (20 seats)	500 sf
Computer Lab	720 sf
Intra and Interlibrary Loan Librarian	150 sf
Program Coordinator	150 sf

Technical Services Department Head	150 sf
Technical Services Workroom	750 sf
Children's print collection: (41,825 vol. @ 10 vsf)	4,183 sf
Children's non-print collection: (3,767 vol. @ 10 vsf)	377 sf
Computer terminals (Children's) 8 @ 36 sf	288 sf
Juvenile seats: 50 @ 25 sf	1,250 sf
Children's story/program area (capacity for 60)	750 sf
Children's Librarian	150 sf
Children's Librarian's work area	250 sf
Young adult collections: (1,745 vol. @ 10 vsf)	175 sf
Young adult seats: 30 @ 25 sf	750 sf
Young Adult Librarian	150 sf
Computer terminals (Young Adult): 5 @ 36 sf	180 sf
Photocopiers 2 @ 25 sf	50 sf
Community Room - Meeting/program space	3,150 sf
Circulation area	750 sf

Adult Circulation Supervisor	150 sf
Circulation/general workroom	450 sf
Patron and Collection maintenance work area	80 sf
Library Director	300 sf
Reception Area/Administrative Assistant	400 sf
Bookkeeper's work area	100 sf
Kitchen	125 sf
Staff lounge	250 sf
Mail area	100 sf
Data closet	75 sf
General storage	750 sf
SUBTOTAL	34,349 sf
NON ASSIGNABLE SPACE @ 25%	8,587 sf
TOTAL SPACE:	42,936 sf

## **Summary**

The Haverford Township Free Library has been engaged in facilities planning for many years. The current facility has many limitations that need to be addressed. One of the most significant of these limitations is the amount of parking available on-site for library patrons. This factor, combined with the multitude of problems with the current physical plant, appears to be a driving force in evaluating and securing an alternate site for an expanded library.

In the short term, the library needs to address some physical plant deficiencies at its current location. This includes (but is not limited to) roof replacement, the specifications for which are currently under development. The library needs to protect its investment in its building, as the resale value will be an important component of the financing for a new facility.

The Building Program Report delineates the spaces that are necessary for a new facility based upon the information that was provided to this consultant during the site visit and interview process. The library needs to thoroughly review this report and determine if there are any changes that they would want to make. Such changes would then, in turn, impact the Table of Spaces. It will also be important for the library to engage the services of an architectural firm to begin the development of some basic schematic concepts and cost estimates for a building that follows the findings of this report. This will be critical to the library's continued planning process.

# Appendix

## **Appendix Introduction**

In addition to the main body of this building program report, there are several additional items that are relevant to the facilities planning process. These items are detailed below:

**Appendix A** - A copy of the planning report for the Haverford Township Free Library prepared in 2000 by this consultant is included. Please note, however, that the library is no longer pursuing the majority of options articulated in that report. It is included for historical and information purposes.

**Appendix B** – The library expressed interest in green building concepts. This appendix piece provides some basic information on considerations for constructing environmentally friendly facilities.

**Appendix C** – This document provides a detailed breakdown of the library’s collection goals and breakdown.

**Appendix D** – Provides some interesting information concerning the concept of libraries emulating the Borders and Barnes and Noble bookstore model.

# **APPENDIX A – 2000 Planning Report**



**Haverford Township Free Library  
Facilities Planning Study -2000  
Rich Bowra, Library Building Consultant**

**Background**

The Haverford Township Free Library serves a population of 56,873 residents of Haverford, Pennsylvania, and is a member of the Delaware County Library System. The library is currently located at 1601 Darby Road, Havertown, PA. The current library building, owned by Haverford Township, consists of a former bank building and an addition that was completed in 1979. The usable square footage of the facility totals 21,000 square feet. This area excludes what is known as unassignable space (elevators, bathrooms, stairs, furnace room, and related areas). The parcel on which the library is located is relatively small and does not allow for any expansion of the building or public parking.

The library is open 66 hours per week (except for the summer schedule). Currently, there are 32,504 cardholders. The library collection consists of 113,587 cataloged items. The library continues to add cataloged volumes at a faster pace than that at which items are weeded (removed) from the collection. Annual circulation for 1999 was 242,963. A total of 104,789 juvenile items were circulated (43% of the total circulation).

Reference staff answered 15,155 questions in 1999, and 6,568 children and adults attended library programs. The children's programs and services at the Haverford Township Free Library are recognized as being one of the most heavily used throughout the Delaware County Library System.

The 1999 annual operating budget of the library was \$1,171,348. Based upon the assignable population, this translates into \$20.60 per capita. Haverford Township provided \$690,000, or 59% of the total operating income. The tax base for Haverford Township is, essentially, flat. It was noted that some of the neighboring municipalities contain a greater percentage of commercial development, thus creating a more substantive and growing tax base.

**The Challenge**

The present library location and building has many deficiencies, and it is critical that the library takes some action to remedy these problems. Several options are currently being considered:

- Renovations to the current facility, including expansion of public parking
- Relocation to a new facility at the Haverford State Hospital complex

- Relocation to the Skatium, currently a public skating rink owned by the Township

The purpose of this report is to assess the issues, analyze the options, and recommend the next steps in the facility planning process. The challenge, that will become more apparent in this study, is that there are a variety of complex issues relating to each option.

### **Background for the Report**

Information gathered for this report was gathered by the consultant during a two-day visit to the Haverford Township Free Library. The first day of the visit (June 18, 2000) began with a tour of Havertown and the surrounding area, conducted by Board President Patricia Biswanger and Library Director Virginia Smith. Following the tour, a meeting was held at the library to discuss a multitude of issues relating to the library, its services, its future direction, and possible site alternatives. Attendance at the meeting included Ray Brebach (Board), Pat Evans (Children's Librarian), Joanne Cahill (Adult Circulation), Sue Vision (Reference), Virginia Smith (Library Director), Pat Biswanger (Board President), and Mary Lou Toal (Board). The second day of the visit (June 19, 2000) began with a meeting with Kathy Mulhearn, the Program Librarian. A tour of the facility was held, followed by a meeting with Township Manager Thomas J. Bannar. Following this meeting, Virginia Smith and the consultant met with representatives of the Delaware County Library System; David Belanger (System Administrator) and Janice Stubbs (District Consultant).

Other resources used as sources of background information include the Commonwealth of Pennsylvania Annual Report for the Haverford Township Free Library, and the staff and board planning session facilitated by the Delaware County Library System.

### **Staff and Board Planning**

Staff and Board of the Haverford Township Free Library met earlier in the year to conduct some strategic planning. This session was led by David Belanger, Administrator of the Delaware County Library System. Some of the highlights of the "wants" list included:

- Do more fundraising
- More outreach for older adults
- More space in the library for older adults
- Create a Young Adult section
- Create a larger business section
- Create a quiet study area
- Increase space for tutoring

- Increase staff salaries
- Further develop audiovisual services
- Have more room to grow

This planning session also included a “SWOT” analysis of the community. Items mentioned included:

- Emergence of computers
- Changing population
- Older adults/older adults in assisted living
- Younger adults with children
- More working parents
- Emergence of “mega” bookstores
- No charge for reserves
- Parking
- Magazines

Staff and board made some flipchart notes of what would constitute the “ideal building.”

- Open Friday evenings
- Parking for 100 cars
- Exhibit space (walls)
- More computers
- Good lighting
- Eliminate shelving that is too high and too low and hard to access
- Comfortable furniture
- Work areas for staff
- Staff offices
- Specialized sections (collections)

### **Meeting the Needs of the Public**

The most important step in any public library facility planning process is to determine the needs of the public and to base the facility needs on how to best meet these demands. An initial step would be to ask the question: *Does the library currently meet the needs of the community?* What are the plans for future programs and services? Where do the board and staff stand in terms of visioning for the future?

While the Haverford Township Free Library is a very busy and dynamic facility, it is clear that the building, in its current condition, cannot adequately meet the needs of its residents. These shortcomings are enumerated in the section that follows.

### **Problems and Challenges With the Current Facility**

The last major renovations to the current facility were done in 1979, more than 21 years ago. The library essentially consists of two buildings, a bank building constructed in 1938, and an addition constructed in 1979. There are several substantive problems with the current library facility:

- Insufficient on-site parking, with a total of 17 on site parking spaces
- Lack of proper handicapped access, including an undersized passenger elevator and lack of accessible rest room facilities
- Leaking roof
- Insufficient office and work space
- Insufficient meeting room and program space
- Deficiencies with the HVAC system
- Deficiencies with the lighting system
- Deficiency in the flooring in the old building and where the addition meets the original building

### **Parking**

On site library parking consists of a total of 17 parking spaces. The parking lot has one entry and egress point that further complicates the frustration that patrons encounter when seeking already limited parking. While there is some on street parking within a very short walking distance from the library, some of this is metered and some of this is across highly trafficked thoroughfares. Oftentimes during library programs, parents will drop off their young children across the street from the library. Children will dart across the street to the library, creating an extremely hazardous situation.

For a library of this size, a parking lot to accommodate no less than 100 cars on site is recommended. Attention must also be given to providing the appropriate number of handicapped parking spaces.

### **Handicapped Access**

This facility was renovated and expanded at a time when attention to handicapped access was not a priority. The Americans With Disabilities Act has brought significant changes to the renovation and construction of public facilities. The current facility has a passenger elevator that is undersized for ADA requirements. None of the staff and public restrooms are handicapped accessible.

### **Leaking Roof**

Water damage is quite apparent on the upper floor of the library, particularly in the children's room. While there have been many attempts to remedy the problem, there continues to be problems with the roof

system. This poses a constant threat to library materials, furnishings, and equipment.

### **Insufficient Office and Work Space**

With the exception of the Library Director and some office support staff, the staff work areas are woefully inadequate. Many staff members must do their work out in public area when privacy would be recommended. Additionally, staff storage space is not adequate. It is strongly recommended, under all of the scenarios presented, that plans include sufficient office, work, and storage space for staff.

### **Insufficient Meeting and Program Room Space**

The current meeting and program rooms are located in the basement of the library. Staff find that the location is inconvenient and that there is considerable dampness in the area. It is described as “very cold,” and not inviting for people to come down. Programs are limited to no more than 100 people. Setup for programs is difficult.

### **Deficiencies with the HVAC System**

It is reported that the current HVAC system produces considerable variations in temperature throughout the library building. Additionally, the HVAC system is the original system that was installed in 1979, and is, therefore, at the tail end of its useful life cycle. Staff have commented that they suspect that exhaust fumes from the traffic on Mill Road are sucked into the air intake located along the Mill Road side on the building’s exterior.

### **Deficiencies with the Lighting System**

Staff and public find the current lighting system inadequate for their needs. Library lighting is a complex issue, with specific foot-candle requirements for stack areas, table areas, and work areas. The current lighting system should be measured and compared with standard library foot-candle requirements. Attention should also be directed towards energy efficient light fixtures.

### **Flooring**

Libraries require floor loading of 150-200 pounds per square foot live load. The floor loading capabilities of both sections of the existing facility should be confirmed to be sure that they meet requirements.

## **Options Under Consideration**

### **Option One**

#### **Renovate the Current Facility and Expand On-Site Parking**

The current facility is located centrally in the community and is conveniently located within walking distance to the middle and high schools. Upon a brief inspection, it appears that a solution to the extreme parking problem would quickly make this a logical option. However, upon a more comprehensive review, it is apparent that there are many major shortcomings in the current facility that need to be addressed.

With respect to the acquisition on property for additional parking, the Township Manager has expressed concern about the loss of tax revenue to the township should these properties become a part of the library complex. Another complicating factor concerns what would be necessary to acquire the properties. Would the township exercise the power of eminent domain? Would the transaction include property acquisition only, or would there be a need to purchase the business housed in the properties?

It should be noted that, in its current location, the library is within walking distance of the middle and high schools. There is considerable student patron traffic after school lets out throughout the school year. This gives students, particularly teenagers, a place to go, and also gives teachers easy access to materials that supplement resources available through the school libraries.

The first step in the consideration of this option is to get definitive answers to a number of key questions:

#### **It is recommended that the library:**

- Conduct an appraisal of the properties adjacent to the library that would be considered for additional parking
- Calculate the tax loss to the Township as a result of these commercial properties being removed from the tax rolls
- Determine if the property acquisition would entail property acquisition only or if there would be any legal obligation to buy-out the businesses involved (As opposed to a business relocation)

- Calculate the costs of demolishing the properties, grading the land, and constructing the required surface parking

Unfortunately, the costs associated with remaining in the current location reach beyond the costs of acquiring additional parking. There are many other building systems that require extensive work. It will be necessary for a professional architectural and engineering firm to conduct an audit of the building and calculate the costs of the required extensive improvements:

- Conversion and/or installation of handicapped access restroom facilities
- Repair or replacement of the roof
- Replacement of the current elevator with an elevator that meets ADA accessibility requirements
- Improvements and/or replacement of the lighting system
- Replacement of the HVAC system
- Construction of adequate staff office space
- Evaluation of condition and load-bearing capability of wood floors in the original portion of the library (libraries require 150-200 pounds per square foot live load)

The true cost of remaining in the current facility will be a sum total of the costs to acquire neighboring commercial properties, improve these properties for parking, and conduct thorough renovations to the existing facility.

## **Option Two**

### **Construct a New Facility on the Haverford State Hospital Complex**

The Haverford State Hospital complex consists of several buildings on 250 acres that were closed by the Commonwealth of Pennsylvania a few years ago. The specific condition of each of the buildings is not known. There would be concern about asbestos in the existing buildings. Under this option, however, it is assumed that a new library facility would be constructed.

When an institution is given the ability to construct a new facility for its services, the opportunities presented are substantial. Library staff and board can develop a building program that incorporates the current and future needs of the library. Such needs include stack areas, seating, patron work space, technology, program space, staff work space, and parking. Based upon recent projects that have been constructed nationally, the cost per square foot for new library construction can typically range from \$125-\$175 per square foot. Based upon this calculation, the cost to construct a new facility of 35,000 square feet for the Haverford Township Free Library would range from \$4,375,000 to \$6,125,000. This cost estimate is exclusive of site acquisition, furnishings and equipment. Costs associated with extensive site work and moving are not included in these figures.

The possibility of a move to the Haverford State Hospital site brings with it several major issues. First and foremost, the possibility of such an option needs to be confirmed. During meetings with library staff, library trustees, and Township officials, several scenarios for the Haverford State Hospital were presented. A number of these options included site development that would not include a municipal services complex. There has been some interest in this property by Villanova University and private golf course developers.

Should the decision be made to create a municipal complex on these grounds, the library will have an opportunity to be considered as a part of this development. The most significant concern expressed about this site was its location within the Township, away from the center of town. For the library to be successful in this location, there would need to be assurance that other key community amenities would be located here as well. These would include the municipal swimming pool, expanded/new skating complex, and other recreational facilities. Currently, there is no public transportation to this site. It would be critical that the complex is served by public transit as part of its development.



**Option Three**  
**Relocate Into the Skatium Facility**

The prospect of the library relocating into the Skatium facility will be driven by the development of the Haverford State Hospital complex. Under this scenario, a new skating facility would be constructed on the hospital grounds, and the library would be given the opportunity to relocate to the former skating facility. The library would share space with one or more of the local fire companies. Included within the plans for the fire company, would be a banquet/catering facility designed to serve 500 persons. Consideration could be given to sharing some of this space as library program space, however, the typical times for such activities could easily conflict with library program schedules. Not unlike the renovations to the current library facility, there are a number of critical issues that will need to be carefully studied when developing estimates for the Skatium conversion.

**It is recommended that the library:**

- Would be guaranteed that it would occupy a considerable portion of the lower level in order to secure its visibility within the community.
- Engage an architect and engineer to study the ability to accommodate the necessary library height requirements of two floors in the current Skatium facility. There is concern that the current height of the building might not accommodate the two floors necessary for the library. Ceiling heights of 9 or 10 feet (or greater) are recommended on all floors.
- Engage an architect and engineer to estimate the ease and costs associated with constructing a second floor in the Skatium facility.
- Engage an architect and engineer to estimate the costs of ensuring that all floors are capable of supporting the required live load of 150-200 pounds per square foot.
- Engage an architect and engineer to do some initial cost estimates for retrofitting the building for library use.

While there is substantial parking in the current Skatium complex, how will the need for parking from the athletic fields, fire, and police vehicles impact the library during peak times? Would these athletic fields remain? What would the impact of persons using the banquet facility be on the need for library parking?

Ingress and egress for the fire company and library should be separated from the library, as the arrival and departure of fast moving vehicles would create a serious safety concern for library patrons.

The Skatium facility is, essentially, a building shell with few interior amenities. For the purposes of renovation, the shell would be all that would remain, with a complete rebuilding of the interior. A preliminary architectural study should address the cost considerations related to obtaining the proper ceiling heights, second floor deck, and the necessary floor-loading capability. It would not be surprising to see the costs of retrofitting this building to be only slightly less than the costs associated with constructing a new facility.

In meeting with the Township Manager, a tentative timetable for this scenario was presented. If the decision to build a municipal complex on the Haverford State Hospital grounds was made during the summer of 2000, work would not begin any sooner than Spring, 2001. Approximately one year later, in the Spring of 2002, the Skatium would be vacant, allowing work to begin on that facility for conversion to a fire station and, possibly, the public library. Renovations to the vacated Skatium would proceed over a one-year period, making available for occupancy by early 2003. Therefore, from decision to occupancy, a time frame of a minimum of 2 ½ years needs to be allowed.

### **Library Space Planning**

This report does not include a library space planning study, which is another major component of library planning. It is recommended that the Haverford Township Free Library conducts a comprehensive library space planning study to accurately assess the amounts and types of spaces needed in its library facility, regardless of the option to be pursued.

Some of the typical areas addressed in a library space planning study include:

- Specific sizes and relationships of public spaces (adult, young adult, children's, and program space)
- Space requirements for library collections
- Specific sizes and relationships of staff spaces (offices, storage, kitchen, closets, etc.)
- "Specialized spaces" – (loading dock, delivery areas, lobby, etc.)

- Technology needs (computer wiring, telecommunications, power, etc.)
- Special features (display cases, kitchen facilities, book return, circulation desk, reference desk, etc.)
- Lighting
- HVAC system
- Security (Fire and smoke detection, entry alarms, and library materials security system)
- Handicapped access and ADA considerations

### **Conclusions**

It is clear that none of the three options presented is without concerns. Politics and individual opinions aside, it would be most useful to obtain cost estimates for all of the elements associated with the three options. This will cost money and time, but will be a very worthwhile investment and allow an objective analysis of the options from a cost-benefit standpoint.

## **APPENDIX B – Building Green**

From: [www.buildinggreen.com](http://www.buildinggreen.com)

### **#1. Save Energy--Design and build energy-efficient buildings.**

The ongoing energy use of a building is probably the single greatest environmental impact of a building, so designing buildings for low energy use should be our number one priority. Decisions made during the design and construction of a building will go on affecting the environmental performance of that building for decades to come--perhaps even centuries--through energy consumption. An integrated design approach can often take advantage of energy savings that become feasible when the interaction between separate building elements, such as windows, lighting, and mechanical systems, are considered.

#### **Sample strategies:**

- In buildings with skin-dominated energy loads, incorporate high levels of insulation and high-performance windows, and make buildings as airtight as possible.
- Minimize cooling loads through careful building design, glazing selection, lighting design, and landscaping.
- Utilize renewable energy resources to meet energy demand.
- Install energy-efficient mechanical equipment, lighting, and appliances.

**Cost implications:** Likely to increase first cost, but significant savings in operating cost can often be achieved. Reduced heating and cooling loads may also reduce first cost of HVAC equipment, helping justify the expense.

### **#2. Recycle Buildings--Utilize existing buildings and infrastructure instead of developing open space.**

Existing buildings often contain a wealth of material and cultural resources, and contribute to a sense of place. In some cases the workmanship and quality of materials that has gone into them is almost impossible to replicate today, making the restoration all the more valuable.

#### **Sample strategies:**

- Do not ignore priority #1, above. When restoring or renovating buildings, maximize energy efficiency.
- Handle any hazardous materials appropriately (lead paint, asbestos, etc.).

**Cost implications:** Usually--but not always--less expensive than building new. These projects can be difficult to budget.

### **#3. Create Community--Design communities to reduce dependence on the automobile and to foster a sense of community.**

To reduce environmental impacts, we must address transportation. Even the most energy-efficient, state-of-the-art passive solar house will carry a big environmental burden if its occupants have to get in a car each morning and commute 20 miles to work. Since the 1940s, zoning and land-use planning have, in general, been impediments to, rather than supporters of, responsible transportation patterns. Effective land-use planning can also help to foster strong communities.

#### **Sample strategies:**

- Design communities that provide access to public transit, pedestrian corridors, and bicycle paths.
- Work to change zoning to permit mixed-use development so homeowners can walk to the store or to work.
- Incorporate home offices into houses to permit "telecommuting."
- Site buildings to enhance the public space around them and maximize pedestrian access.

**Cost implications:** Smaller and shorter roads, services lines and storm sewers should reduce costs. Obtaining zoning variances can be time-consuming.

#### **#4. Reduce Material Use--Optimize design to make use of smaller spaces and utilize materials efficiently.**

Smaller is better relative to the environment, and no matter what the materials, using less is almost always preferable--as long as the durability or structural integrity of a building is not compromised. Reducing the surface area of a building will reduce energy consumption. Reducing waste both helps the environment and reduces cost.

#### **Sample strategies:**

- Reduce the overall building footprint and use the space more efficiently.
- Simplify the building geometry to save energy and materials.
- Design building dimensions to optimize material use and reduce cut-off waste. For example, design buildings on a 2' or 4' (600 mm or 1,200 mm) module. With light-frame construction, use 24"-on-center framing and headers sized to each opening.

**Cost implications:** Some additional design time may be needed, but overall, this strategy should save money, particularly with larger projects and multiple-building developments. Increasingly, we need to consider not only the cost of buying materials, but also the cost of disposing of what's left over--by reducing waste we save both ways. A 4x10 (1,200 mm by 3,000 mm) sheet of  $\frac{5}{8}$ " (15 mm) drywall, for example, which costs about \$8 to buy, now costs more than \$4 to landfill in some areas!

#### **#5. Protect and Enhance the Site--Preserve or restore local ecosystems and biodiversity.**

In fragile ecosystems or ecologically significant environments, such as old-growth forests or remnant stands of native prairie, this might be the highest priority.

**Sample strategies:**

- Protect wetlands and other ecologically important areas on a parcel of land to be developed--on some sites you should reevaluate whether development should be carried out.
- On land that has been ecologically damaged, work to reintroduce native species.
- Protect trees and topsoil during construction.
- Avoid pesticide use--provide construction detailing that minimizes the need for pesticide treatments.
- With on-site wastewater systems, provide responsible treatment to minimize groundwater pollution--there are several innovative new wastewater treatment systems that do a better job at nutrient removal than conventional septic systems.

**Cost implications:** Some of these measures cost less than standard practice, others cost more. Maintenance costs with natural landscaping are often much less than for conventional practice.

**#6. Select Low-impact Materials--Specify low-environmental impact, resource-efficient materials.**

Most--but not all--of the environmental impacts associated with building materials have already occurred by the time the materials are installed. Raw materials have been extracted from the ground or harvested from forests; pollutants have been emitted during manufacture; and energy has been invested throughout production. Some materials, such as those containing ozone-depleting HCFCs and VOCs, continue emitting pollutants during use. And some materials have significant environmental impacts associated with disposal.

**Sample strategies:**

- Avoid materials that generate a lot of pollution (VOCs, HCFCs, etc.) during manufacture or use.
- Specify materials with low embodied energy (the energy used in resource extraction, manufacturing, and shipping).
- Specify materials produced from waste or recycled materials.
- Specify materials salvaged from other uses.
- Avoid materials that unduly deplete limited natural resources, such as old-growth timber.
- Avoid materials made from toxic or hazardous constituents (benzene, arsenic, etc.).

**Cost implications:** Some resource-efficient products are available at no extra charge; others may cost more. Installation may differ from standard practice, raising labor cost if installer is unfamiliar with a product.

**#7. Maximize Longevity--Design for durability and adaptability**

The longer a building lasts, the longer the period of time over which the environmental impacts from building it can be amortized. Designing and building a structure that will last a long time necessitates addressing how that building can be modified to satisfy changing needs.

**Sample strategies:**

- Specify durable materials--this is usually even more important than selecting low-embodied-energy materials.
- Assemble the materials to prevent premature decay.
- Design for easy maintenance and replacement of less durable components.
- Design for adaptability--particularly with commercial buildings.
- Allocate an appropriate percentage of building funds for ongoing maintenance and improvements.
- Consider aesthetics during design, and whether a particular style is likely to remain popular--the idea of "timeless architecture."

**Cost implications:** Though not necessarily more expensive in all cases, building for durability usually does require a larger initial investment. Preventative maintenance also requires ongoing investment, though it is generally cheaper over the long term than repairs due to insufficient maintenance.

**#8. Save Water--Design buildings and landscapes that are water-efficient.**

This is largely a regional issue. In some parts of the country, reducing water use is much higher on the priority list.

**Sample strategies:**

- Install water-efficient plumbing fixtures and appliances.
- Collect and use rainwater.
- Provide low-water-use landscaping (xeriscaping).
- Separate and use graywater for landscape irrigation where codes permit.
- Provide for groundwater recharge through effective stormwater infiltration designs.

**Cost implications:** Most of these measures will add to the cost of a project. Some savings in lower water and sewage bills and longevity of on-site septic systems can offset the additional costs. Designs that promote stormwater infiltration are usually less expensive than storm sewers.

**#9. Make the Building Healthy--Provide a safe and comfortable indoor environment.**

Though some people tend to separate the indoor environment from the outdoor environment, the two are integrally related, and the health of the building occupants should be ensured in any "sustainable" building. With many clients, this is the issue that first generates interest in broader concerns of environmentally sustainable building.



### **Sample strategies:**

- Design air distribution systems for easy cleaning and maintenance.
- Avoid mechanical equipment that could introduce combustion gases into the building.
- Avoid materials with high rates of VOC offgassing such as standard particleboard, some carpets and adhesives, and certain paints.
- Control moisture to minimize mold and mildew.
- Introduce daylight to as many spaces as possible.
- Provide for continuous ventilation in all occupied buildings--in cold climates, heat-recovery ventilation will reduce the energy penalty of ventilation.
- Give occupants some control of their environment with features like operable windows, task lighting, and temperature controls.

**Cost implications:** Most of these measures will increase construction costs, but they often are easily justified based on the increased health, well-being, and productivity of building occupants. Failure to pursue these measures can lead to expensive "sick-building" lawsuits.

### **#10. Minimize C&D Waste--Return, reuse, and recycle job-site waste and practice environmentalism in your business.**

For more and more materials, sorting and recycling job-site waste is paying off economically, and it can certainly generate a good public image.

### **Sample strategies:**

- Sort construction and demolition waste for recycling.
- Donate reusable materials to nonprofit or other community groups where they can be used to build or improve housing stock.

**Cost implications:** Additional labor to sort and recycle waste is often offset by the savings in disposal costs, though these vary by region. Sorted material can sometimes be sold for a profit.

### **#11. Green Up Your Business--Minimize the environmental impact of your own business practices, and spread the word**

In addition to creating buildings with low environmental impact, you should practice environmentalism in your own business, thus serving as a model for other design or construction firms.

### **Sample strategies:**

- Purchase fuel-efficient company vehicles and promote use of public transportation and carpooling by employees.
- Use recycled paper in your office and recycle wastes generated in your office.
- Use the design process to educate clients, colleague, subcontractors, and the general public about the environmental impacts of buildings and how they can be mitigated.

**Cost implications:** Carpooling and public transportation can save money for employees, while reducing the number of parking spaces the business must provide. Recycled paper, for most applications, is only slightly more expensive than virgin.

## Final Thoughts

In deciding which measures to pursue on specific projects, consider the relative benefits of the different measures. You might begin by customizing the list for your region. In an arid climate, for example, water conservation would go near the top, while in a city prone to smog inversions, transportation alternatives might be the most important. Then refer to your list as you consider each project, and identify the areas where you can do the most for the environment.

Pick the low-hanging fruit first, and go after the tougher issues as time and resources allow. Return to buildings you've completed to see which systems are working and which aren't, and how occupants have modified your work to fit their needs. When possible, use your buildings to strengthen the link between occupants and the global environment through education and direct interaction. Finally, if you are incorporating environmental features into your work, take advantage of that fact in your marketing efforts.

We hope that this ranking will serve to inspire others who regularly think about environmental impacts of building to offer their opinions. Like most lists and categories, this list serves a purpose but also carries the risk of compartmentalizing the design and construction process. Often the most significant opportunities for benefiting the environment come from a careful integration of the design, taking advantage of synergies between building elements. The most elegant design solutions--those that reduce complexity while solving multiple problems--won't be found by considering each item on this list in isolation. In the next few issues of EBN we hope to include letters from readers on this important question: Where should we focus our greatest effort in reducing the environmental impact of our buildings? Let us know your thoughts.

## **APPENDIX C – Collection Goals**

## **APPENDIX D – Borders Concept**

