

A Building Program
for the
Round Lake Area
Public Library
District

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I. EXECUTIVE SUMMARY

I-A. Introduction

This *Building Program for the Round Lake Area Public Library District* is intended to provide the architect selected by the district's Board of Trustees with specific information necessary for designing and constructing a new library building for the district.

The Round Lake Area Public Library serves a group of communities in Lake County, Illinois, including Round Lake, Round Lake Park, Round Lake Beach, Round Lake Heights, and Hainesville.

In 2020, the population of the library district was about 40,000.

The Round Lake library currently occupies a 29,000-square-foot building originally constructed in 1988 and remodeled in 2000. A general rule of thumb for long-term library building sizes is up to two square feet per capita. The library's current site is far too small to house the size of building the library needs.

The library building has a number of strong features:

- Generally good repair.
- A large number of computers for public use.
- Pleasant outdoor spaces.
- Central location in the district.
- Location on a quiet side street near local parks.
- A meeting room that can be used when the rest of the library is closed.
- Pleasant natural light.
- The strongest features of the library, however, are only partly related to the construction of the building. These include excellent public programs; a friendly, competent staff; and strong collections.

The building also has a substantial number of weaknesses:

- Small size for the population served.
- Inadequate space for readers.
- Insufficient shelving, which forces the library to regularly remove materials that are still of interest to the community from the collection to make space for new or replacement items.
- Inadequate meeting facilities.

- Bad acoustics.
- Low ceilings in most areas, making good lighting difficult.
- Inadequate staff workspaces.
- A site too small for the needed larger building.
- Overflow parking from an adjacent park.
- Extremely limited storage space.
- Inadequate wiring.
- An awkwardly arranged staff lunch room.
- HVAC problems.

Construction options for the library include:

- **Expanding and remodeling the current building, or replacing the current library with a new building on the same site.** This is essentially impossible because the current library and its parking lot occupy the entire site. Expanding the building by adding another floor is structurally impossible, and even if the building could support another floor, the result would be an inadequate parking lot. Similarly, the site is too small for a new public library building and an adequate parking lot.
- **Converting an existing structure to a new public library.** This can be done on rare occasions, but in most cases no building sufficiently large is available, and very few buildings are strong enough to serve as libraries.
- **Constructing a new library building on a new site.** Given the limited site, the only option available to meet the long-term space needs of the library is construction of a new building on a larger site.

I-B. Spaces in the new library building

The library will contain the following spaces:

Vestibule

- Providing separate access to the meeting rooms, restrooms, and main library spaces, allowing meetings to take place when the rest of the library is closed.
- Benches for users waiting to be picked up.
- Counter for curbside pickup.
- Bulletin boards and a plasma panel for announcing library and community events

Lending Department

- The library's popular patron liaison desk, which provides a variety of assistance and direction and is staffed by bilingual employees
- Lending desk, with space for four staff members
- Book and AV return slots
- Book sale shelving
- Vending equipment for snacks, coffee, and library supplies
- A social area with café style tables
- The library's heavily-used passport service
- A drive-through book return
- An exterior book pickup unit for people who cannot stop by the library when it is open or who (like mothers with children in car seats) cannot easily come into the library

Adult Department

- Reference desk, staffed at all times
- Collections of materials to borrow, including books, audio books, CDs, DVDs, newspapers, magazines. The library's excellent collections in English and Spanish reflect the needs of the community.
- Items for the new Library of Things collection.
- Seating at four-person tables, two-person tables, one-person tables, armchairs, and a couch.
- Eighteen computer workstations for library users.
- Six four-person study rooms, two eight-person study rooms, two media studio rooms, and a maker space. Study rooms are used for tutoring, quiet study, test taking, student group projects, meetings of community committees, and parents using computers while accompanied by noisy children. Media studio rooms and maker spaces offer a variety of high-demand equipment.

- A quiet reading alcove with a reading table and armchairs.
- Space for passive programming, such as jigsaw puzzles.

Young Adult Department

- For users from about 13 through 18.
- Collections of books. Magazines, DVDs, CDs and video games for young adults are interfiled with adult collections.
- Computers for study and for multi-user games.
- Seating at reading tables and armchairs.
- Pinnable walls for easy redecoration as young adult fads change.

Youth Department

- For users from birth through about age 14.
- Reference desk, where staff will assist users with finding materials, selecting things to read, and computer use.
- Brightly-lighted display cases at child height for children to exhibit their collections.
- Twenty computers and computer workspaces for children.
- Services for younger children, including picture books, parenting and home-schooling books, CD/book sets, loveseats where parents and children can read together, tables for toddlers and school-age children, craft tables for drop-in crafts, a play kitchen set, and a Lego DUPLO table.
- Services for older children, including books, magazines, DVDs, music CDs, video games, reading tables, beanbag chairs, four study rooms, a couch, and a diner booth for tweens.
- Interactive displays, including a Lite Brite wall, a Lego wall, sensory boards, manipulative displays, artist light table, and so on.
- Activity room with space for stories and crafts.
- Restrooms for boys, girls, and families.
- Restrooms where parents can take children of the opposite sex.

Meeting rooms

- For library programs and for a wide range of community uses.
- Large meeting room with space for up to 200 people on chairs, 100 people at tables, or 400 children on the floor; plus a small stage platform, a digital projector; and a kitchenette.
- Small meeting room with space for up to 50 people on chairs, 25 people at tables, or 100 children on the floor, plus a kitchenette.

Corridor spaces.

Public restrooms

Staff workspaces

Storage spaces

Necessary mechanical spaces

Total estimated space

Vestibule	unassigned space
Lending Department.....	3,825
Adult Department	16,925
Young Adult Department	1,925
Youth Department.....	12,000
Meeting rooms	3,925
Public restrooms	unassigned space
Technical Services Department.....	1,800
Community Engagement Department.....	1,225
Administration	1,875
Information Technology Department.....	700
Staff lunch room.....	675
Lactation room	75
Staff restrooms.....	unassigned space
Deliveries and staff entrances	unassigned space
Custodial spaces.....	1,000
Storage.....	1,500
Vehicle storage.....	<u>300</u>
Net assignable space.....	47,750
Unassigned space (25 percent)	<u>11,950</u>
Total.....	59,700 square feet

“Net assignable space” is space required for all basic library functions.

“Unassignable space” is additional space for restrooms, hallways, HVAC spaces, corridors, elevators, staircases, custodial spaces, the thickness of walls, and other essential spaces that do not directly serve library functions but are necessary for the functioning of the library building.

II. INTRODUCTION

II-A. About this Program

This *Building Program for the Round Lake Area Public Library District* is intended to provide the architect selected by the district's Board of Trustees with specific information necessary for designing and constructing a new building

The *Program* is also designed to be used as a yardstick for evaluating the feasibility of expanding the existing building, as opposed to constructing a new building.

The *Program* was first developed in the fall of 2012 in a series of meetings between the Board of Trustees and staff of the library and the building consultant. It was revised in the fall of 2022 and spring and summer of 2023.

II-B. About the Round Lake Area Public Library District

The Round Lake Area Public Library District serves a group of communities in Lake County in northeastern Illinois, a few miles south of the Wisconsin border. In addition to the village of Round Lake, the library serves the communities of Round Lake Park, Round Lake Beach, Round Lake Heights, and Waynesville. The towns are all far north suburbs of Chicago.

Nearby communities include Grayslake, Libertyville, Waukegan, Mundelein, and Gurnee on the east, McHenry and Crystal Lake on the west, Wauconda and Lake Zurich on the south, and Fox Lake, Lindenhurst, and Lake Villa on the north.

As the town names suggest, the Round Lake area is one of the few locations in Illinois with natural lakes.

Although the Round Lake area has a small-town feel, a Metra commuter station is located a few minutes' walk from the library, making it easy for residents to enjoy a less crowded life while still working in Chicago.

The library district is surrounded by other library districts, so growth by land annexation would require an adjacent area to separate from its current district and annex to the Round Lake district. This is not impossible. For example, a few years ago, that portion of the city of Romeoville that was not part of the Des Plaines Valley Public Library District (now the White Oak library district) separated from the Fountaindale district and joined the White Oak district.

The Round Lake library was originally founded as a volunteer library and became a tax-supported public library in 1972. After operating out of various storefronts, the library constructed its current building in 1988. Originally, all services were provided from the main floor of the building, but in 2000 the building was remodeled. Currently the Adult Department, Young Adult Department, Lending Department, public meeting room, and administrative workrooms are on the main level. The Youth Department, Technical Services, Information Technology, and mechanical rooms are on the lower level.

In 2020, the population of the Round Lake Area Public Library District was about 40,000. Long-term population projections are difficult, but there is undeveloped land in the district. In addition, all library construction projects involve compromises, with ideal space balanced with affordable space. For this reason, the long-term expandability of the library building is of great importance.

One of the major characteristics of the Round Lake Area Public Library District is the importance of the Spanish language to the community. Nearly half the residents of the library district speak Spanish. The library places strong emphasis on hiring staff who speak both Spanish and English, and it has a very strong collection of Spanish-language materials.

The Round Lake area also needs a strong public library because school libraries are closed during evenings, weekends, and school vacation times, when students work on assignments or come to the library for non-assigned reading.

II-C. Evaluation of the current library building

The Round Lake Area Public Library occupies a 29,000-square foot building originally constructed in 1988 and remodeled in 2000.

The loan for the 2000 remodeling was paid off in 2014.

The library is located on a sloped site. Users enter on the upper level, where the Lending Department, Adult Department, Young Adult Department, library meeting room, and library administrative workrooms are located. The lower level contains Youth Services, Technical Services, and various staff functions.

II-C-1. Positive features

The library has many very strong features.

a. The building is in generally good repair

The library has continued to spend the money necessary to maintain the building properly. For example, in 2012, the library completely replaced its disintegrating parking lot and replaced one of its air conditioning compressors. In 2018 it replaced its entire roof, in 2020 it installed a panic button alarm system throughout the entire building, and in 2021 it replaced its fire alarm system.

b. The library has strong programs for children and adults

Although the library does not have enough spaces for meetings and programs, it has still been able to offer many excellent events.

c. The library has a large number of public access computers

Local citizens make extremely heavy use of library computers and the library's wireless service.

d. Pleasant outdoor spaces

The library has attractive plantings and an unusually pleasant terrace at the basement level, outside the Youth Services department.

e. Central location

The Round Lake Area Public Library District has a complex boundary, but the library is generally central to the district.

f. Side street location

The street in front of the library is not a major through street. Traffic noises are not a serious problem, and a low speed limit helps keep children safe.

g. Location next to local parks

The library is built on land donated by the park district, and it is conveniently adjacent to a major park. (Some users apparently assume that the library is a part of the park district.)

The area around the library is wooded and has a number of ravines. The landscape is attractive, but much of the undeveloped space appears to be unsuited for construction.

h. Meeting room that can be used when the rest of the library is closed

i. Pleasant natural light

The library has a large number of south-facing windows that provide attractive light.

j. Responsive staff and strong collections

The library's good leadership, its friendly and competent staff, and its good collections are probably its greatest strengths, but they have little to do with the structure of the building.

II-C-2. Negative features

a. **The building is relatively small for the number of residents of the district**

The district has 40,000 residents. In general, ideal public library sizes are up to two square feet per capita, or anything up to 80,000 square feet. This fact alone indicates that the library's 29,000-square-foot area is insufficient.

b. **Inadequate space for readers**

c. **Inadequate shelving**

The library does not have space for necessary shelving.

In addition, some shelving (particularly in the Youth Department) is too high.

As a result of lack of shelving space, the library is forced to weed its collection aggressively. In the process, some books still of interest to the community have to be withdrawn from the collection as new items are added.

d. **Inadequate meeting facilities**

The building has a main floor meeting room and a children's level activity room. Both are very heavily used, and the library badly needs additional space.

The main floor meeting room has a movable divider with all the problems typical of that kind of equipment. When the room is divided into two spaces, sounds from one side are easily heard on the other side. In addition, the public door to the meeting room leads to only one side of the divided room, and people using the other side must interrupt meetings in the first half of the room while they make their way to the second half.

Adult Services badly needs more study rooms, and Youth Services has no study rooms at all.

e. **Bad acoustics**

Noises carry too well in the library, and users who want to read quietly can find no good place to do so.

For example, noises in the meeting room can be heard in adjacent areas of the building.

Noises carry far too well between the vestibule and Lending Department on the main level and the Youth Department on the lower level. This is due to an open staircase with architectural details that amplify and transmit noise.

f. Inadequate staff workspace

All staff workspaces in the library are extremely overcrowded.

g. Difficult site for construction

The wooded ravines that make the library's site attractive also make major expansion essentially impossible.

h. Parking problems

During major events in the park, participants use the library's parking lot for overflow parking, and there is sometimes not enough space for library users.

There is no parking on the street in front of the library, so when the library parking lot is full, users have few options.

i. Extremely limited storage space

All areas of the library are desperately short of storage space.

The Adult Department, Young Adult Department, and Youth Department have virtually no storage space.

The library meeting room does not have closets for storing furniture that is not in use, and furniture is therefore stacked around the edges of the room during programs.

The boiler room also serves as a storeroom. It is so crowded that making one's way to essential mechanical, electrical and plumbing equipment is not always easy.

j. Awkwardly arranged staff lunch room

The staff lunch room has a wonderful location, adjacent to a lower-level terrace, but it has two problems. First, it opens directly onto a public area of the building. And second, the staff restroom opens directly into the lunchroom, making it embarrassing for staff using the restroom and potentially unpleasant for staff having lunch.

Unfortunately, many libraries have been designed with staff restrooms opening off staff lunchrooms, probably to simplify plumbing, but the result is always bad.

k. HVAC problems

The library's heating, ventilating and air conditioning system is nearly worn out, and necessary repair parts are no longer available.

The estimate for replacing the system is about \$600,000.

III. OPTIONS FOR EXPANSION, NEW CONSTRUCTION, OR CONVERTING AN EXISTING BUILDING

III-A. Basic structural requirements of public libraries

This quick review is intended to provide supporting information for a discussion of construction options.

1. **Extremely strong floors.** Libraries require a minimum floor loading rating of 150 pounds per square foot for all areas of the building, and much more for compact shelving. Few non-industrial spaces are built to this standard. Most modern workroom and commercial spaces are designed to support less than 100 pounds per square foot. In addition, compact shelving requires specific limits on floor deflection.
2. **Ceilings high enough for reflected uplight (never less than 10 feet).** In many cases, higher ceilings—such as 11 or 12 foot ceilings—help prevent buildings from feeling oppressive. One problem with the Round Lake library building is most of the ceilings in the library are too low for reflected uplight.

Ceilings of large meeting rooms need to be higher than other library ceilings, and meeting rooms cannot have columns to support upper floors. For these reasons most meeting rooms in two-story libraries consist of one-story structures.

3. **Three or so feet of open space above the ceiling grid to accommodate ductwork, conduit, piping, cable trays, etc.**
4. **Large open spaces, to prevent single functions from being divided between many small rooms.** Providing service in complex situations almost always increases operating costs.
5. **Single public entrances convenient to both pedestrians and drivers.** Supervising two entrances requires the expenditure of limited library funds on extra staff.
6. **Structures that lend themselves to the maintenance of user, staff, and collection security.**

Maintaining user and staff security is extremely important. Buildings must be easy to supervise, with excellent sightlines and no hidden corners. Staircase design needs to pay more attention to safety than appearance, with no railings that can be climbed like ladders, steps that are of uniform dimensions, no open risers, and straight stairs of standard width. All public areas should meet ADA and Illinois accessibility regulations. New buildings should require absolutely no ramps.

Collection security is always a major issue in libraries, and every entrance requires staff oversight. If the entrance to the library is not on grade, the usual solution is to provide an entry foyer with an elevator and staircase that users can take to individual floors of the library. The best way to provide security in a library is to locate security gates and a service desk directly inside the main entrance. All users pass by the desk before entering the rest of the library. However, if a two-story library has merely an entrance foyer with access to stairs and an elevator, it will need security gates and a service desk at each floor when users leave the stairs or elevator. And a three-story library will require three service desks. Few libraries can afford this kind of staffing pattern.

7. Networks of 110-volt supplies and data conduit in floor slabs.

Libraries need extensive networks of electrical conduit buried in their floor slabs, to provide access to electric power wherever it is needed.

It's extremely important that this conduit is part of new construction. Retrofitting data conduit to concrete floor slabs is a very expensive process. The alternative to proper data conduit and electrical supplies in floors is the use of power poles, which are ugly and inflexible.

Although modern wireless communications are suitable for use with patron computers, it can be very unwise to use wireless for access to secure staff equipment, and hard wired connections provide higher quality performance in computers for public use. Libraries still need data conduit.

8. Restrooms and program rooms adjacent to front entry foyers. In order for library programs to continue past normal closing hours, program rooms and restrooms must be accessible from main entry foyers. This allows the door from the foyer to the library proper to be locked while programs continue. If the program room is used extensively for public meetings, this feature is particularly important.

9. Level entrances, to meet accessibility requirements.

III-B. Potential for expanding and remodeling the current building

1. **The library's current building is attractive and in good repair, but it is about half the size of the library described in this building program.**
2. **If the library is doubled in size, the parking lot will need to be doubled as well.** Given the size of the large meeting room, the parking lot may need to be even larger.
3. **The library's site is extremely limited.** The current library building and parking lot, including setbacks, occupy the entire level area of the lot, and there is no adjacent land the library can acquire.
4. **It is unlikely that the library's physical structure is strong enough to support a third floor, but if the library could be expanded upward there would be no space for the necessary additional parking.**
5. **Adding more than one additional floor to the library would result in extensive extra staffing costs due to the staffing costs resulting from dividing a library department between two floors**
6. **The space required for the combined adult and young adult departments, which are managed as a whole, would be substantially larger than any floor in the current building.**
7. **A new building will require space for long-term expansion, and it may require space for a water detention basin.** Since the site is too small for the building and parking described in this program, and it cannot be expanded, the additional needs noted here could not be met.

III-C. Potential for converting an existing non-library structure

1. **A number of libraries have been constructed by remodeling existing commercial structures.** Recent examples in Illinois include the Decatur Public Library, which occupies a former Sears store, and the Matson Public Library in Princeton, which is located in a former grocery store.
2. **Remodeling is typically far more expensive than one might suspect, often about two-thirds or more the cost of new construction.** Mechanical systems (HVAC, electrical service, lighting, data service, plumbing, fire suppression, and so

- on) can represent 40 percent of the cost of a library, and these almost always need to be replaced if an existing building is taken over. And roofs often need to be replaced.
3. **With the exception of ground floors on concrete slabs, few existing buildings except factories and warehouses have floors strong enough to support the weight of books.** A one-story building large enough for the library would be extremely large.
 4. **If floors are not strong enough for books, the usual solution is to have lower shelves and/or wider aisles, resulting in even greater space needs.**
 5. **Few existing buildings (with the exception of large retail structures) have the open spaces necessary for conversion to libraries.** Both office buildings and school buildings, for example, are cut up into many small spaces, and the cost of opening up the spaces can be high, even if it's possible at all.
 6. **With the exception of large retail spaces, few existing buildings have ceilings high enough for library purposes.**
 7. **Conversion projects require substantially higher contingency funds than new projects do, since there are far greater chances of discovering unexpected problems.** Dealing with unexpected asbestos or buried fuel tanks can greatly increase the costs of conversions.
 8. **Architectural fees for conversions can be substantially higher than for new construction.** Existing structures must be carefully analyzed. Instead of a single set of plans there need to be three sets—one for the existing structure, a second for demolition, and a third for new construction.
 9. **For comparison, universities typically build three types of new buildings—laboratories, athletic facilities, and libraries.** The English department always gets the old chemistry building.
 10. **When libraries acquire existing buildings for conversion to library buildings, the correct price is free.** And that's often far too expensive.
 11. **The usual motivation for conversion of older buildings to libraries is historical preservation, but the buildings often don't have spaces that suit modern library needs.**
 12. **The Board of Trustees of the Round Lake Public Library is not contemplating conversion of an existing non-library building, but the possibility is bound to be raised in a public meeting.**

III-D. Potential for new construction

1. **Of all the options open to almost all libraries, new construction is the simplest.** It avoids coping with the past and permits the greatest flexibility in floor layout. Constructing new buildings is sometimes no more expensive than remodeling existing libraries or converting existing buildings to libraries, and new buildings are almost always less expensive to operate.
2. **New buildings constructed to meet the needs of libraries usually function far better than remodeled or converted buildings.**

III-E. Conclusions

1. **Of all the options open to the Board of Trustees of the Round Lake Public Library, the construction of a new building is the most workable and practical.**
2. **Doubling the size of the current library and parking lot would require far more land than the library now owns.** Since the flat area around the library cannot be expanded, finding the additional space will be difficult.
3. **It is possible that an existing building could be converted to a new library, but the many physical requirements of library design make a successful conversion extremely unlikely.** The most successful projects of this type have involved empty big box stores that were in excellent condition and available at very low prices.

VI. TOTAL ESTIMATED SPACE

Vestibule	unassigned space
Lending Department.....	3,825
Adult Department	16,925
Young Adult Department	1,925
Youth Department.....	12,000
Meeting rooms	3,925
Public restrooms	unassigned space
Technical Services Department.....	1,800
Community Engagement Department.....	1,225
Administration	1,875
Information Technology Department.....	700
Staff lunch room.....	675
Lactation room	75
Staff restrooms.....	unassigned space
Deliveries and staff entrances.....	unassigned space
Custodial spaces.....	1,000
Storage.....	1,500
Vehicle garage	<u>300</u>
Net assignable space.....	47,750
Unassigned space (25 percent)	<u>11,950</u>
Total.....	59,700 square feet

Net assignable space is space for all library functions.

Unassigned space is space for restrooms, hallways, furnace rooms, staircases, elevators, and all of the essential spaces that do not provide specific “library” functions.

Ideally, the building will be two stories. Some features must be on the main floor, including the vestibule, the Lending Department, the meeting rooms, the public restrooms, the delivery room, the vehicle garage, and either the combined Adult and YA Department or the Youth Department.