

FINAL REPORT

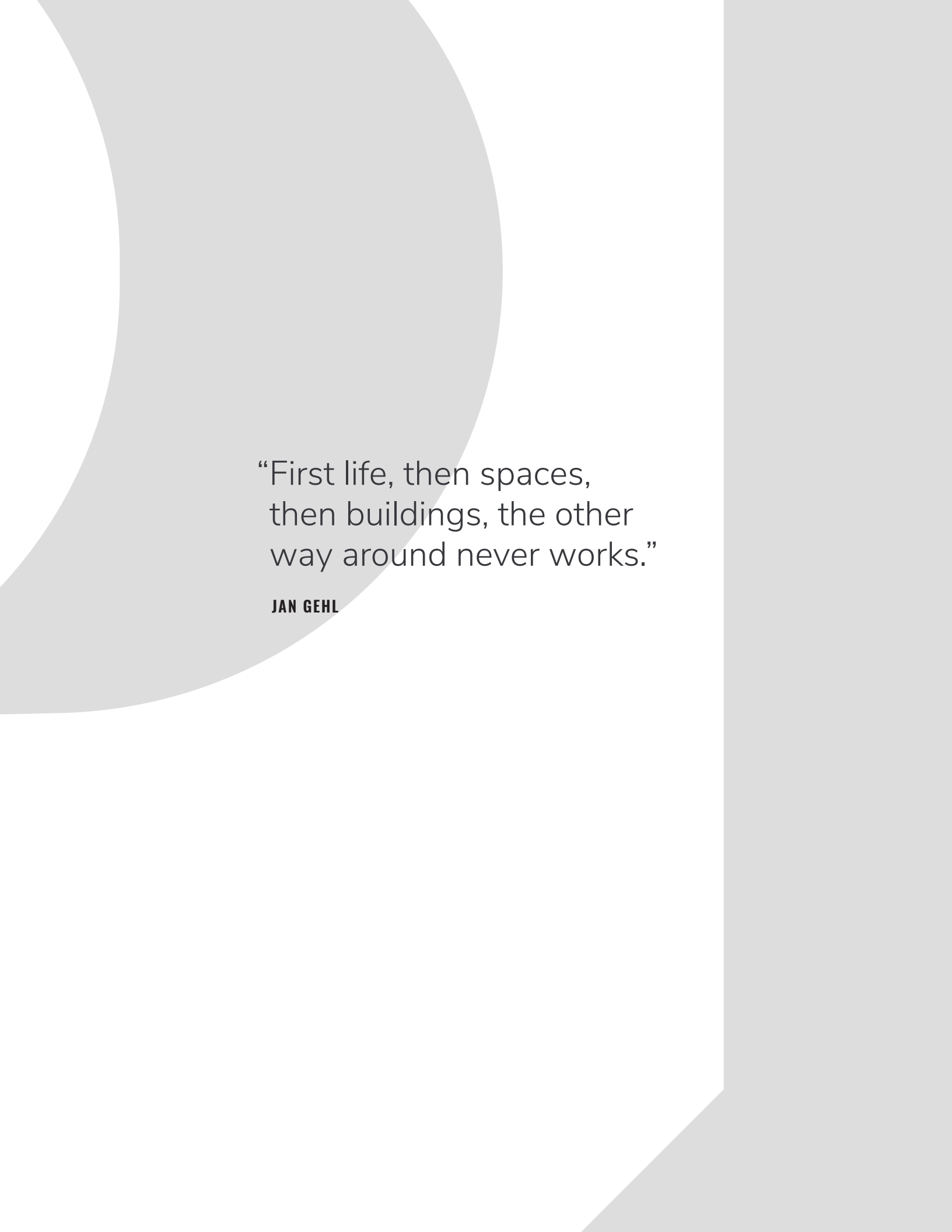
Somersworth Library

Feasibility Study for Accessibility

09.28.21



Placework



“First life, then spaces,
then buildings, the other
way around never works.”

JAN GEHL

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DESIGN



“We urgently need to bring
to our communities the
limitless capacity to love,
serve, and create for and
with each other.”

GRACE LEE BOGGS

Current Use & Needs

Our goal for this accessibility study is to find the best solutions to meet the safety and accessibility needs of the library, for the health and benefit of the people and programs the library serves.

The Somersworth Public Library is a mid-twentieth century homage to community and openness. Immediately upon entering, the high ceilings and large windows create a palpable sense of brightness and welcome. Though there are few partitions dividing the interior, library stacks and furniture organize the open floors, whose split levels are staggered to create intimacy within the openness.

Along with dimensional requirements for things like entrances, ramps, and bathrooms (per ADA Guidelines for Accessible Design) a visual clarity and ease of navigation also contribute to a building's accessibility, and generally makes a welcoming place for people of all ages and abilities.

While the Somersworth Public Library does this well, it was conceived in an era before ADA dimensional standards existed and should now be addressed.



SUMMARY OF EXISTING ACCESSIBILITY & SAFETY ANALYSIS

The primary accessibility issue the library faces is the lack of a ramp or elevator for patrons to access all floors of the library collections. The restrooms are located in the basement level, and not accessible to wheelchair users or others with difficulty using stairs. In general, stair-only access inhibits some users' experience of the library.

One major concern is that the children's area is not an ideal place to spend time due to its basement location and resulting lack of accessibility. A lack of natural light makes the space much less engaging for children. Likewise, the restrooms' location in the basement is not ideal, as it is difficult for both the library staff to monitor and for differently-abled people to access.

As part of this study, the city conducted an online public opinion survey to gather feedback from residents on library use, space, and programs. The results of the survey informed the design efforts described in this report. Additional life safety and accessibility needs are detailed below. See the Addenda for a complete analysis with relevant code references. **This study does not include a detailed space needs analysis, mechanical/structural analysis, or an investigation of hazardous materials.**

FIRE-RATED AREAS

MECHANICAL

So long as the generator is no longer in use and is disconnected from power sources, the basement mechanical room beneath the stairs does not need fire separation by code. The other mechanical equipment in the room does not exceed the maximum requirements allowed without firestopping. Currently, there is an open gap between the top of the block wall and the floor above.

STORAGE

The attic book storage and the potential future use of the basement as book storage that is inaccessible to the public both require two hours of fire separation from the areas that are accessible to the public.

EGRESS AND EXITS

Depending on exit configurations and construction, modifications to vestibules and stair shafts may be required to ensure adequate fire separation.

EGRESS

The building has an adequate number of exits per code and the location of the existing stairs from each story meets egress code. Further, according to the IEBC, we should not have to enclose and fire-rate the stairway that connects the basement to the main floor to the attic.



AUTOMATIC SPRINKLER SYSTEM

An Automatic Sprinkler system is required for new construction or major renovation, as defined by the IEBC. Major renovation is defined as exceeding 50% of the gross building area. Therefore, depending on the total area of construction, a sprinkler may not be required by code in the existing building. However, adding sprinklers to the existing building for occupants' safety is recommended.

Should an addition be undertaken such that another entrance/exit is added, this will require automatic sprinklers to be implemented throughout the building (new construction and existing) per NFPA 13.1.1.6.

ACCESSIBILITY

The International Building Code states that at least one accessible route must connect each accessible story and mezzanine in multilevel buildings and facilities. Currently, due to the absence or ramps or an elevator, this requirement is not met. In the existing building, the West entrance is close to grade level and is nearly compliant with accessibility requirements except that the two doors in series are not separated by 48" plus the width of the doors in the direction of travel.

Accessible entrances must be marked, and inaccessible entrances must include signage directing towards the accessible entrance. Currently, this signage is not present.

ELEVATOR

Because the existing library technically has four stories open to the public, an elevator is required if major alterations are undertaken. If an elevator is provided, and an automatic sprinkler system is not added, it will need an enclosed elevator lobby on each floor to separate the hoistway by fire/smoke partitions. Vertical accessibility is most efficiently achieved with an elevator or a floor lift, though ramps do meet code requirements for less than three stories, were the basement to be closed off to public access.

For the purposes of this document and cost estimation, a Limited Use Limited Application elevator was assumed. It is not required for Somersworth Library to have an elevator that accommodates a stretcher, but this is an important consideration for health emergencies. To meet the code requirements for 84" stretchers, a 4'0" center opening or a 3'6" side opening is required.

BATHROOMS AND THEIR ACCESSIBILITY

It is required (in new construction and major renovations) to provide an accessible route to restroom facilities. The existing restrooms do not meet present-day accessibility requirements. If major renovations are undertaken and if we elect to keep the restrooms in the same location (thereby assuming there will be an accessible route to them), we will need to make the restrooms accessible. This could be as simple as omitting one toilet to meet spatial requirements. If additional library space is created, this will affect the number of required fixtures.

PARKING

As per their Zoning Ordinance, the City of Somersworth promotes shared parking. This means the designation of spots specifically for library patron usage at any public lot within 500' of the property line. Any building that provides public parking must also provide accessible parking. According to the current ordinance, the library could provide one or two handicap parking spaces and rely on street parking or designated shared parking in nearby public lots.

OTHER

There is the possibility of children getting stuck in the railings of the main public space as the bars are wide enough to fit their heads through in some instances. Per the building code, guards shall not have openings that allow passage of a sphere 4 3/8" in diameter and there are several locations where this limit is exceeded. A new 42" guard rail is recommended. Whether it is required will depend upon the level of renovation that is undertaken (ie. greater than 50% of the gross building area).

As the library was constructed before the Clean Air Act of 1970, it is recommended to conduct a Hazardous Materials Survey. This includes an investigation into the potential presence of asbestos, lead, and mold.

SEE ADDENDA FOR A COMPLETE ACCESSIBILITY AND LIFE SAFETY ANALYSIS WITH REFERENCES TO RELEVANT BUILDING CODES.

KEY DESIGN DRIVERS

Based on the design analysis above, some key design drivers have been identified:

- Need for an elevator and related lobby space
- Need for accessible restrooms
- Need for a more inviting environment for the children's area with a fully accessible route
- Need for a minimum of one fully accessible entrance that meets ADA requirements
- Desire for fire suppressing sprinklers to the building

Additional needs of the library are programmatic, and ideally these should be considered as the above solutions are addressed. Among these, the public survey respondents favored additional meeting rooms (49.2%) and more story hour and craft space (47.5%). Other needs identified by library staff include maintaining or adding storage space to support programs, expanding the space available for collections, and maintaining the size of the current office space.

See the Addenda for a complete Code and Life Safety Analysis.



Among the 136 respondents to a public survey, 82% identified the library as a very important community service. While nearly all respondents have internet service at home, they are still eager to come out to the library for access to the collections and for a sense of community through adult and children's activities. Meeting the future programming needs of the library will require not only adjusting to population growth and changing demographics, but also carving out space for lectures, events, and activities.



Great cities are not static—they constantly change, and they take the world along with them... to provide new structures that could house new talent and new ideas.

EDWARD GLAESER

Conceptual Design Narrative

PATHS FORWARD

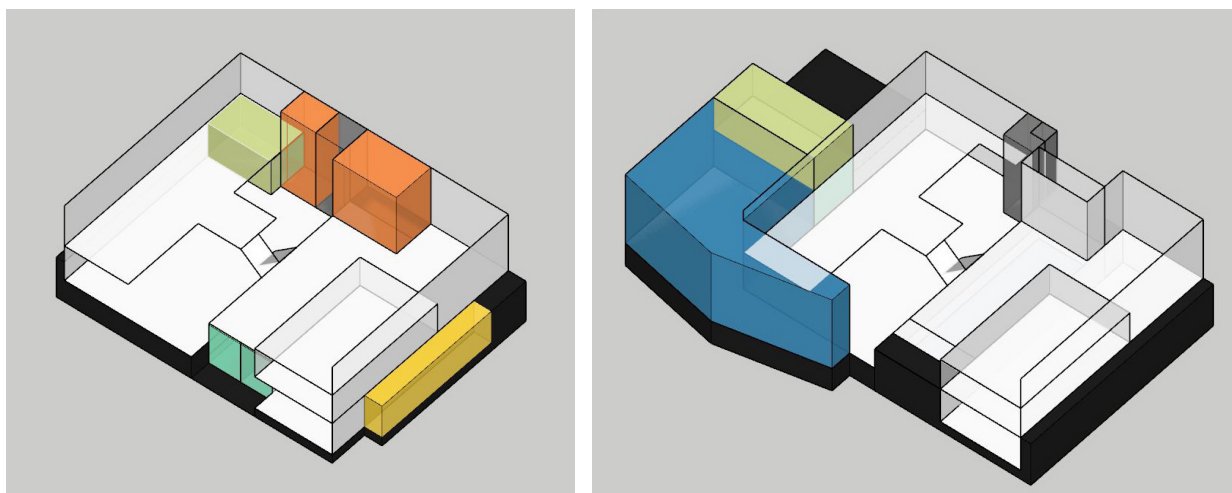
Two conceptual design schemes emerged from this study. The first involves strictly a renovation of the existing building to meet the necessary accessibility and life safety needs. The second explores an addition on the south side of the building, which better preserves the integrity of the existing library space while meeting current and future needs.

While a detailed program analysis was not a part of this study, the breakdown of program spaces by scheme can be found in the Program Comparison Chart in the Design section of this report.

SCHEME 1: RENOVATE WHOLE BUILDING & UPGRADE THE BASEMENT

The design analysis pinpointed the basement as a pivotal space that determines the outcome of the design. If the basement is made accessible and upgraded to meet the library's needs for a welcoming children's room, then with some trade-offs, the program can be accommodated in the existing building without building an addition.

In this scheme, an elevator would need to be added near the parking lot entrance that stops at all public floors. If the building has a sprinkler system, then there can be open access the elevator. If it does not have sprinkler system, then new, enclosed lobbies are required at each level. The current open layout with high ceilings creates a civic scale, facilitates natural wayfinding (the signals and signage that help one navigate a space), and overall creates a bright and airy environment that would be diminished if encroached upon by these lobbies. Thus for the sake of safety and good spatial organization, adding a sprinkler system to the building in both design schemes is recommended regardless of whether the renovation area meets the threshold of 50% at which point it becomes a requirement.



Progress Models for Scheme 1 and Scheme 2
presented to the Somersworth City Staff on August
6th, 2021.

If the basement is upgraded, the bathrooms could remain in place with renovations to make them fully accessible. The existing light well could be modified and expanded to bring a bit of natural light into the room, and the floors could be damp-proofed to reduce moisture driven odors in the basement. These changes would reconfigure the space in the Children's Room, and could unfortunately eliminate a much-needed storage room.

Other low impact measures are included to improve accessibility and safety, such as upgrading the guardrails and signage. The expansion of the west vestibule for elevator access will also provide needed distance between the doors to bring the vestibule into ADA compliance.

The renovation-only Scheme 1 is a viable option that fits all of the necessary upgrades within the existing building.

SCHEME 2: BUILD A NEW CONNECTION TO MAIN STREET AND CLOSE OFF THE BASEMENT

In Scheme 2, the current program space that exists in the basement is relocated entirely to the addition. An inviting activity room for children's programming can be nestled in between the children's stacks and a sunny, south facing patio. The library would still be legible at a glance, with sightlines from the new entry all the way through to the existing circulation desk. The existing form of the library would remain intact, with openings onto sunny new rooms where the south facing windows are now. A two story addition allows for new meeting room space on the upper level and expansion of the popular fiction section. Furthermore, the added space can meet patrons' desire for both a communal area and a separated quiet zone.

In this scheme, either an elevator or ramps would be able to provide wheelchair access to all three floor levels. Given the constraints of the site, our initial thought is that an elevator is a more efficient use of space than ramps. However, should this scheme be advanced into a schematic design phase, ramps with adjacent seating or shelving could be explored.

The basement would serve as storage space, and the basement restrooms could remain open to staff only without requiring renovation. 3 new single-user, gender-neutral restrooms would be included in the addition within view of a new circulation desk. The addition will require sprinklers, which could then be extended into the existing building.

Finally, the American Planning Association recommends that libraries provide .6 s.f. of stack space per resident. Currently, the library provides 5,490 s.f. of stack space. Somersworth currently has a population of approximately 12,000 residents, which means the library ought to provide at least 7,200 s.f. of stack space for its patrons. An addition makes reaching this benchmark feasible.

COMPARISON OF SCHEMES

Given the considerable investment involved in bringing the existing building up to code and safety needs, we assessed how those needs might be better addressed in a new addition. Rather than spending money on upgrading a basement that is hard to find and less pleasant than the main rooms, we asked how those needs could be met (and more) if we relocated them to a new space with better lighting and better visibility to the public and staff. This new space would align with the existing lower and upper gallery floor levels, and be accessible from the sidewalk at Main Street. This opens up the possibility of a much more inviting public entrance into a space that remains open and bright. Further programmatic study is needed to determine the exact shape and layout of an addition, but the current study adequately demonstrates a viable and forward-looking option.

Conceptual Design Plans

SCHEME 1: RENOVATION ONLY



FIRST FLOOR PLAN + SITE PLAN
NOT TO SCALE



This conceptual design plan illustrates an efficient renovation of the existing spaces in the library. The private meeting room/study space is located within the lower level reading area so that it minimizes the impact on the open feel of the library space. The vestibule at the back is widened in order to make it an accessible entrance (See Addenda for Code & Life Safety Analysis). Should the decision be made to not add a sprinkler system to the building, an enclosed elevator lobby is required for fire separation at each floor level.

In the basement, the space is reconfigured (at the expense of storage space) and opened up to better accommodate shelving and seating. An expanded light well along the North wall will provide more natural light. The bathrooms are reconfigured, taking up some previous storage/office space, so that their entrance is toward the elevator to assist with accessibility and wayfinding.



BASEMENT PLAN
NOT TO SCALE



Conceptual Design Plans

SCHEME 2: RENOVATION AND ADDITION

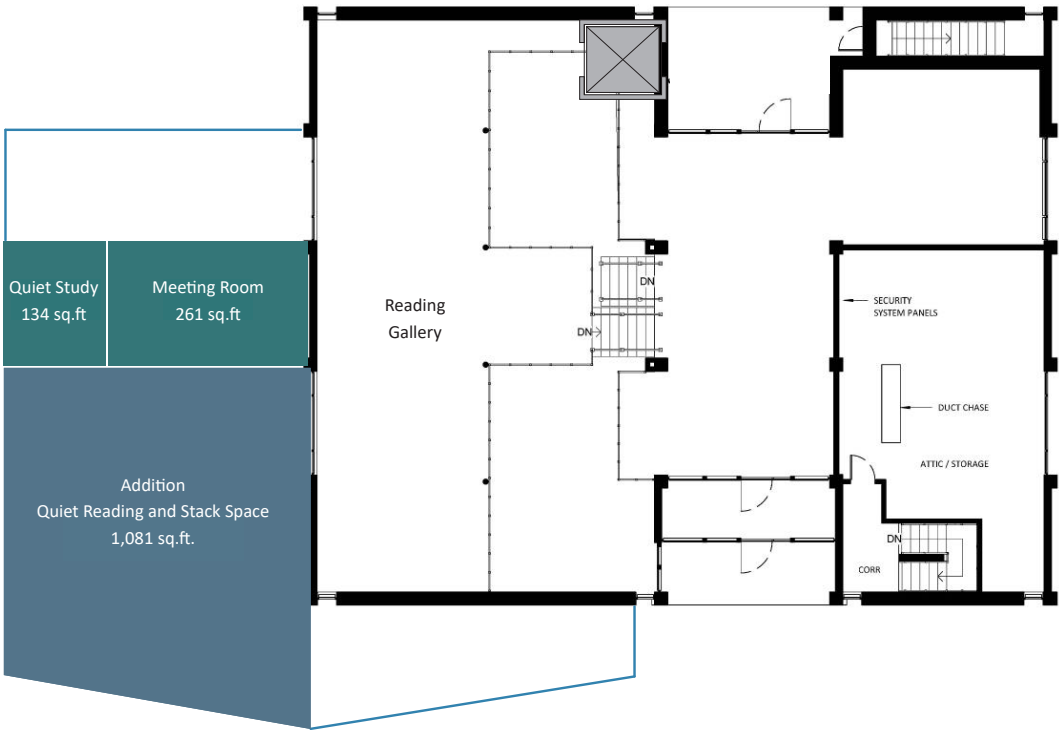


FIRST FLOOR PLAN + SITE PLAN
NOT TO SCALE



In Scheme 2, an addition to the library promotes accessibility, maintains the historical character of the original structure, and enhances library patrons' experience. The shape of the addition in plan is meant to represent the organization of program spaces, and is not yet intended to represent literal architecture. All requested functions (quiet study space, accessible restrooms, improved children's area) are located in the addition, as mentioned in the Design Narrative. Square footage is to be added to the lower level reading room and upper reading gallery to expand existing stack space on those levels.

Please see the following page for a comparison of square footage between the existing plan, the renovation, and the addition.



SECOND FLOOR PLAN
NOT TO SCALE



Program Sq. Ft. Comparison

ROOM	EXISTING S.F.	RENOVATION S.F.	ADDITION S.F.
Sunken Reading Room Stack Space	2,011	1,810 (-201)	3,707 (+1,696)
First Floor Circulation/Stack Space	1,274	1,274	1,274
Office	441	441	441
Reading Gallery Stack Space	1,228	1,228	2,309 (+1,081)
Basement Stack Space	977	1,179 (+202)	0 (-977)
Basement Storage	215	65 (-150)	1,631 (+1,416)
Basement Mechanical	150	150	150
Basement Office	104	0 (-104)	0 (-104)
Attic	612	612	612
Restrooms	190	242 (+52)	337 (+147)
Lightwell	86	231 (+145)	86
Additional Circulation	455	455	455
Meeting Room		201	261
Quiet Study			134
Total Square Footage:	7,743	7,888	11,397 (+3,654)
Total Stack Space:	5,490	5,491 (+1)	7,290 (+1,800)

*Renovating the basement in a later phase could add up to 1,179 s.f. more stack space as listed above. This would bring the total stack space s.f. to 8,469 (+2,979).

ISO
COST

Opinion of Probable Cost

The design and cost analysis led to an exploration of two basic schemes. Scheme 1 includes the renovation of the existing building with no addition; Scheme 2 includes building an addition plus renovation of the existing building to meet accessibility and life safety goals. The approximate opinion of probable construction cost for Scheme 1 is \$900,000, as compared to \$2,000,000-plus for Scheme 2.

It cannot be overstated that these construction costs are based on the limited information available to the design team at this level of conceptual design and in the absence of engineering reviews. Moreover, market volatility is high. How much this will affect long-term pricing is still unknown, but this document relies upon published industry cost escalation forecasts as of the date of publication. Costs have been uniformly adjusted to a 2020 baseline with 7% escalation assumed for 2022 construction.

New Construction Hard Costs						
	2020 sf cost	2020 ls cost	sf area	subtotal	SCHEME 1	SCHEME 2
Typical Cost per SF	\$251.10		3654	\$ 917,519	\$ -	\$ 917,519
Concrete Ramp		\$13,720		\$ 13,720	\$ -	\$ 13,720
Landscape & Parking	\$51.70		1928	\$ 99,668	\$ -	\$ 99,668
New Construction Sub-Totals					\$ -	\$ 1,030,907
Existing Renovations Hard Costs						
	2020 sf cost	2020 ls cost	sf area	subtotal	SCHEME 1	SCHEME 2
Sprinklers @ existing					\$ 88,425	\$ 88,425
New water line		\$32,550		\$ 32,550		\$ (32,550)
ACT New	\$3.92		6000	\$ 23,520		
Piping	\$3.92		6000	\$ 23,520		
Fire Alarm		\$4,185		\$ 4,185		
Coring		\$4,650		\$ 4,650		
Elevator @ existing					\$ 146,968	\$ 146,968
Gallery catwalk	\$68.60		72	\$ 4,939		
LULA lift		\$83,700		\$ 83,700		
Bsmnt. concrete patch	\$19.60		25	\$ 490		
Demolition	\$32.10		379	\$ 12,164		
Bsmnt. New SF	\$350.00		127	\$ 44,450		
Bsmnt. Finishes Patch.	\$12.25		100	\$ 1,225		
Landscape repair	\$12.25		120	\$ 1,470		
Generator??		\$73,500			\$ 75,440	\$ 75,440
Fire Stopping		\$1,940				
1st Floor Vestibule					\$ 14,187	\$ 14,187
Storefront	\$38.80		167	\$ 9,465		
Conc. Patching	\$19.60		108.5	\$ 2,127		
Flooring	\$9.80		150	\$ 1,470		
Paint	\$2.25		500	\$ 1,125		
Glass railing	\$215.60		148		\$ 31,909	\$ 31,909
Meeting room	\$65.66		200	\$ 13,132	\$ 13,132	\$ -
Signage		\$1,960			\$ 1,960	\$ 2,500

OPINION OF PROBABLY COST, CONTINUED

Existing Renovations Hard Costs (continued)						
	2020 sf cost	2020 ls cost	sf area	subtotal	SCHEME 1	SCHEME 2
Basement work for Scheme 1					\$ 166,267	\$ -
Selective demolition	\$32.10		1436	\$ 46,088		
New restrooms		\$37,200		\$ 37,200		
Epoxy and Flooring	\$11.76		1436	\$ 16,887		
New partitions, finishes	\$39.20		256	\$ 10,035		
Electrical, FP, IT	\$43.12		1436	\$ 56,056		
New Light well					\$ 34,289	\$ -
Construction	\$300.00		78	\$ 23,400		
Site demolition	\$10.39		79.2	\$ 823		
Landscape	\$9.80		277.2	\$ 2,717		
HVAC balancing & ductwork for exist.		\$6	1300	\$ 7,350		
Existing re-roof	\$8.50		4560	\$ 38,760	\$ 38,760	\$ 38,760
Existing Building Renovations Sub-Totals					\$ 611,337	\$ 365,639
Addition & Renovation Combined Sub-Totals					\$ 611,337	\$ 1,396,546
Construction Markups						
General Conditions, Overhead & Profit, Bonds & Insurances				15%	\$ 91,701	\$ 209,482
Soft Costs						
Arch. & Eng. Fees				12%	\$ 73,360	\$ 167,586
Owner's Contingency				10%	\$ 61,134	\$ 139,655
Furniture and Equipment						
Markups and Soft Costs Sub-Totals					\$ 226,195	\$ 516,722
Combined Hard and Soft Costs					\$ 837,532	\$ 1,913,268
7% Escalation from 2020-2022					\$ 58,627	\$ 133,929
TOTAL OPINION OF COST					\$ 896,159	\$ 2,047,197

Exclusions: hazardous materials testing and removal, geotechnical testing, temporary relocation costs, exterior structural concrete repairs.



A true architect is not an artist but an optimistic realist. They take a diverse number of stakeholders, extract needs, concerns, and dreams, then create a beautiful yet tangible solution that is loved by the users and the community at large.

CAMERON SINCLAIR

ADDENDA

City Council Response

A question-and-answer session was held with the Somersworth City Council on September 20th, 2021. During this meeting, support for Scheme 2 was expressed as a worthwhile investment. It was agreed that the children's room and restrooms are not well-suited in their current basement location. The question of how to bring this library into the twenty-first century was raised: Does this involve more emphasis on multimedia? Does it mean more meeting and conference space? It was suggested too that potential partnerships with local schools could be opportunities to build upon both physical book resources and technological resources. As always, budget is of the utmost importance, and the opinions of probable cost presented in this report can be further honed once more design decisions are made.

These responses from the Council provide guidance for the next steps in the design process.

Methodology

PART ONE - EXISTING CONDITIONS REVIEW

PROJECT STARTUP

- Project Kick-Off & Visioning, Site and Building Walk Through (Meeting 1)
- Confirmed Project Scope & Time line, Created Project Schedule
- Data Gathering; Discussed programming needs that may not be met and/or use of space that is not optimal in the present configuration

EXISTING CONDITIONS ANALYSIS

- Reviewed Existing Conditions Documentation
- Site Visit/Survey
- Created base documentation in digital format (Revit)
- Conducted a Life Safety & Accessibility Assessment of the Existing Conditions

PART TWO - CONCEPTUAL DESIGN AND BUDGETING

CONCEPTUAL DESIGN

- Created Initial Options as Block Diagrams
- Product/code research regarding ramp/lift/elevator as required.
- City conducted public opinion survey for library patrons; feedback incorporated into design
- Initial Design Progress Meeting - Reviewed Options (Meeting 2)
- Reviewed public opinion survey results
- Developed 2 Conceptual/Test Fit Options
- Developed Order of Magnitude Costs for Design Options
- Prepared draft report and submit for comments; revised as required
- Presented Draft Report to City of Somersworth, Sept. 20 2021

FINAL CONCEPT RECOMMENDATIONS

- Created Final Concept Design drawings and brief description of concept/approach
- Coordinated Final Opinion of Probable Cost

EXCLUSIONS

Our services did not include the following:

- A full Existing Conditions Report including photos and narratives that describe any current conditions or deficiencies.
- Investigation of existing hazardous materials, including mold and moisture
- Design of structural systems or site work
- Design of mechanical, electrical, fire detection, security, or telecommunications systems
- Detailed documentation of systems such as conveyance and/or mechanical/electrical systems

Code and Life Safety Analysis

CODE AND LIFE SAFETY ANALYSIS PER NFPA 101 2015, IBC 2015, AND IEBC 2015. ACCESSIBILITY ANALYSIS IS BASED ON THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND ICC.A117 2017. FIRE ALARM AND DETECTION SYSTEMS WERE EXCLUDED FROM THIS ANALYSIS.

BASIC EXISTING OCCUPANCY/USE CLASSIFICATION

Room Name	Function of Space (Table 1004.1..1)	Use Classification		Room Area SF (net or gr)	Occupant Load	
		Use Group	Incidental Accessory Use		Maximum Floor Area Allowance per Occupant	Total persons
Reading Room	Stack Area	A-3	-	2011	100 gross	21
First Floor	Stack Area	A-3	-	1274	100 gross	13
Reading Gallery	Stack Area	A-3	-	1228	100 gross	13
Basement Reading Area*	Stack Area	A-3	-	977	100 gross	9
Office – Main Floor	Administration	B		441	100 gross	5
Office - Basement	Administration	B		104	100 gross	2
Attic Mechanical	Mechanical	-	Accessory	612	300 gross	
Basement Mechanical	Mechanical	-	Incidental	148	300 gross	
Boiler Room	Mechanical		Accessory		300 gross	
Basement Storage 1	Storage	S-1	-	150	300 gross	
Basement Storage 2	Storage	S-1	-	65	300 gross	
Women's Restroom	Restroom	-	Accessory	118	100 gross	2
Men's Restroom	Restroom	-	Accessory	71	100 gross	1
TOTAL OCCUPANCY						66
Total Staff						7
Total Public						59

FIRE-RATED AREAS

INCIDENTAL USE

Basement Mechanical Room with Generator: Though there appears to be a generator in this mechanical room, updates from City Staff confirm that this is only a switch, and the generator is disconnected. If the generator and switch were operational, it would necessitate a 1-hr fire rating between the Mechanical Room and the rest of the basement.

S-1 STORAGE

S-1 storage includes storage of books and flammable paper materials. S-1 storage requires 2 hrs. of separation from A-3 occupancy in a non-sprinklered building. (1 hour in sprinklered). This applies to the attic book storage and the potential future use of the basement as book storage.

BUILDING TYPE: IIIB

We've classified the building as IIIB due to the roof and floor construction. Roof and floor assemblies are not fire-rated but the structural system is non-combustible. (We cannot classify as IIIA because the stories are less than 20' away from the underside of the roof.)

EXISTING MAX OCCUPANCY

Current according to local officials: 43, not including staff
Calculated Per Area: 59 public, 7 staff

MAX. HEIGHT

2 stories maximum above grade without sprinklers. The building does not exceed this limit.

MAX AREA

9,500 s.f. per floor maximum without sprinklers. The building does not exceed this limit.
The Reading Gallery is not a mezzanine, but rather its own floor, because its floor area is greater than 1/3 of the floor below it.

EGRESS AND EXITS

Depending on exit configurations and construction, modifications to vestibules and stair shafts may be required to ensure adequate fire separation.

EGRESS

- Max. distance to required exit: 200'
- Occupancy Load on First Floor: 52 (26 per exit)
- Occupancy Load from Basement: 14

Because every point of the Reading Room and the Reading Gallery is within 75' of its single point of egress, the location of the existing stairs from each story meets egress code. Further, the building has an adequate number of exits per code.

According to the IEBC, we should not have to enclose the stairway that connects the basement to the main floor to the attic:

IEBC 803.2.2: Where the work area on any floor exceeds 50 percent of that floor area, the enclosure requirements of section 803.2 shall apply to vertical openings other than stairways throughout the floor."

Stairways are specifically excluded from the work area rule.

AUTOMATIC SPRINKLER SYSTEM

REQUIREMENT FOR AUTOMATIC SPRINKLER SYSTEM:

While the library is less than 12,000 s.f. and has an occupant load of less than 300, because the fire area is located on the same floor as the level of exit discharge, an Automatic Sprinkler system is required for new construction or major renovation, as defined by the IEBC.

IEBC 804.2.2: In buildings of Occupancy Group A, work areas (defined as “portions of a building consisting of all reconfigured spaces as indicated on the construction documents”) that have exits which serve an occupant load greater than 30 shall be provided with an automatic sprinkler system, unless the building does not have sufficient water supply and would require installing a new pump.

The exits of the library serve 27, as 9 people are accommodated by the basement exit. We will have to be cognizant about exits/egress during construction.

*If the work area on a floor exceeds 50% of that floor area, sprinklers must be installed.

*If new construction takes place such that another separate egress must be added for occupant load, the entire building (new construction and existing) must have automatic sprinklers installed.

Although based on the excerpts above, and depending on the total area of construction, a sprinkler may not be required by code in the existing building, Placework would recommend adding sprinklers to the existing building for occupants' safety.

FINISHES

REQUIREMENT FOR WALL AND CEILING FINISHES:

Exit stairways and passageways for A-3 Non-sprinklered: Class A finishes are required.

Rooms and Enclosed Spaces for A-3 Non-sprinklered: Class A or B finishes are required.

ELEVATOR

If an elevator is provided, per IBC section 3006.2, if a building does not have an automatic sprinkler system, it needs an enclosed elevator lobby on each floor to separate the hoistway by fire/smoke partitions except on levels where the hoistway opens to the exterior.

IBC: As the library has fewer than four stories above the level of exit discharge, it is not required by code to have an elevator.

IBC 3002.4: Because the library does not have 4 stories above grade nor 4 stories below, it is not required for the elevator to accommodate a stretcher. The desire to have one was expressed at the City Council workshop on 9/22/2021. For elevators that accommodate stretchers, a 4'0" center opening or a 3'6" side opening is required.

ADAAG 2010 36.404: Elevators are not required in an altered facility that is less than three stories or has less than 3,000 s.f. per story. Because the library technically has four stories open to the public, an elevator is required if major alterations are undertaken or exits are re-configured.

ACCESSIBILITY

ICC A117 402.2: Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doors and doorways, gates, ramps, curb ramps excluding flared sides, blended transitions, elevators and platform lifts.

IBC 1104.4: At least one accessible route shall connect each accessible story and mezzanine in multilevel buildings and facilities.

IBC 1105.1: At least 60% of all public entrances must be accessible (in new construction). Existing conditions do not meet this requirement.

Accessible entrances must be marked, and inaccessible entrances must include signage directing towards the accessible entrance. Currently, this signage is not present.
Accessible entrances with two doors in a series must be separated by 48" plus the width of the doors when swinging into the space. Currently, the intended Accessible entrance does not meet this requirement.

The employee work area is exempt from needing accessible routes as common circulation paths because it is less than 1000 s.f.

If we officially designate the attic as a space frequented only by service personnel, we do not have to make it Accessible (only one exit required, no accessible route required. Existing stairs will suffice). Likewise, the basement will require maintaining two exits if it remains a public area.

BATHROOMS AND THEIR ACCESSIBILITY

PLUMBING FIXTURE ANALYSIS												
Use Group	Tabular Fixture Ratios					Occupant Load Women	Occupant Load Men	Plumbing Fixtures Required				
	Toilets		Lavatories		DFs			Toilets		Lavatories		DFs
	W	M	W	M				W	M	W	M	
A-3	1/65	1/125	1/200	1/200	1/500	27	26	1	1	1	1	
Fixtures Required (at existing occupancies)								1	1	1	1	1
Fixtures Existing								2	2	2	2	1

2902.3.2: The required public employee toilet facilities shall be located not more than one story above or below space required to be provided with toilet facilities, and path of travel shall not exceed a distance of 500 feet.
It is required (in new construction and major renovations) to provide an accessible route to restroom facilities.

The existing restrooms do not meet present-day accessibility requirements. Depending on how much we interfere with the building and if we elect to keep the restrooms in the same location (thereby assuming there will be an accessible route to them), we will need to make the restrooms accessible. This could be as simple as omitting one toilet to meet spatial requirements. If additional library space is created, this will affect the number of required fixtures.

PARKING

As per their Zoning Ordinance, the City of Somersworth promotes shared parking. This means the designation of spots specifically for library patron usage at any public lot within 500' of the property line. Any building that provides public parking must also provide accessible parking. If parking is to be included, guidelines for such can be found in Somersworth's Site Plan Review Regulations.

According to the current ordinance, the library could provide one or two handicap parking spaces and rely on street parking or designated shared parking in nearby public lots.

OTHER

There is the possibility of children getting body parts stuck in the Reading Gallery railings.

IBC 1015.4.1: From a height of 36" – 42", guards shall not have openings that allow passage of a sphere 4 3/8" in diameter.

A new 42" guard rail is recommended. Whether it is required will depend upon the level of renovation that is undertaken.

KEY TAKEAWAYS

Of primary concern is the need for accessible pathways to all public floors. This is most efficiently achieved with an elevator or a floor lift, though ramps do meet code requirements for less than three stories should the basement be closed off to public access.

The accessibility of the bathrooms is also of concern. They are not configured properly, and there is no accessible route to them. We can either create new restrooms on an accessible floor, or provide a more accessible route to the basement.

The least-impact option would be to create a double-entrance elevator that has access to all four public stories. If the building remains unsprinklered, the city will have to fire-proof and reconfigure the back entrance, and create enclosed lobbies on each floor.

Library Community Survey

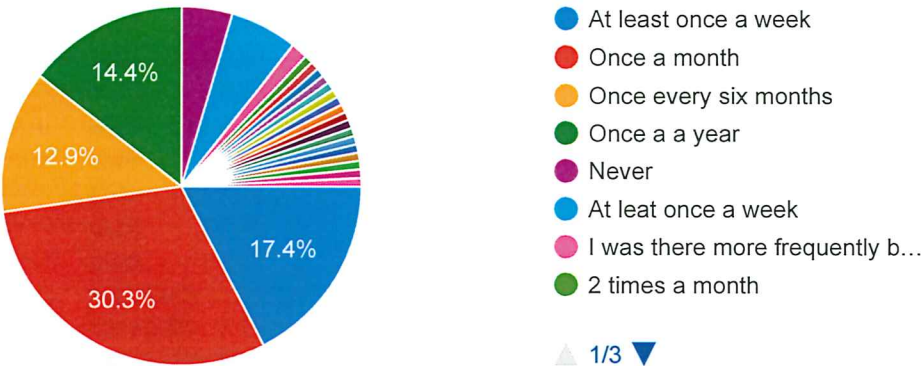
Somersworth Library Survey

136 responses

[Publish analytics](#)

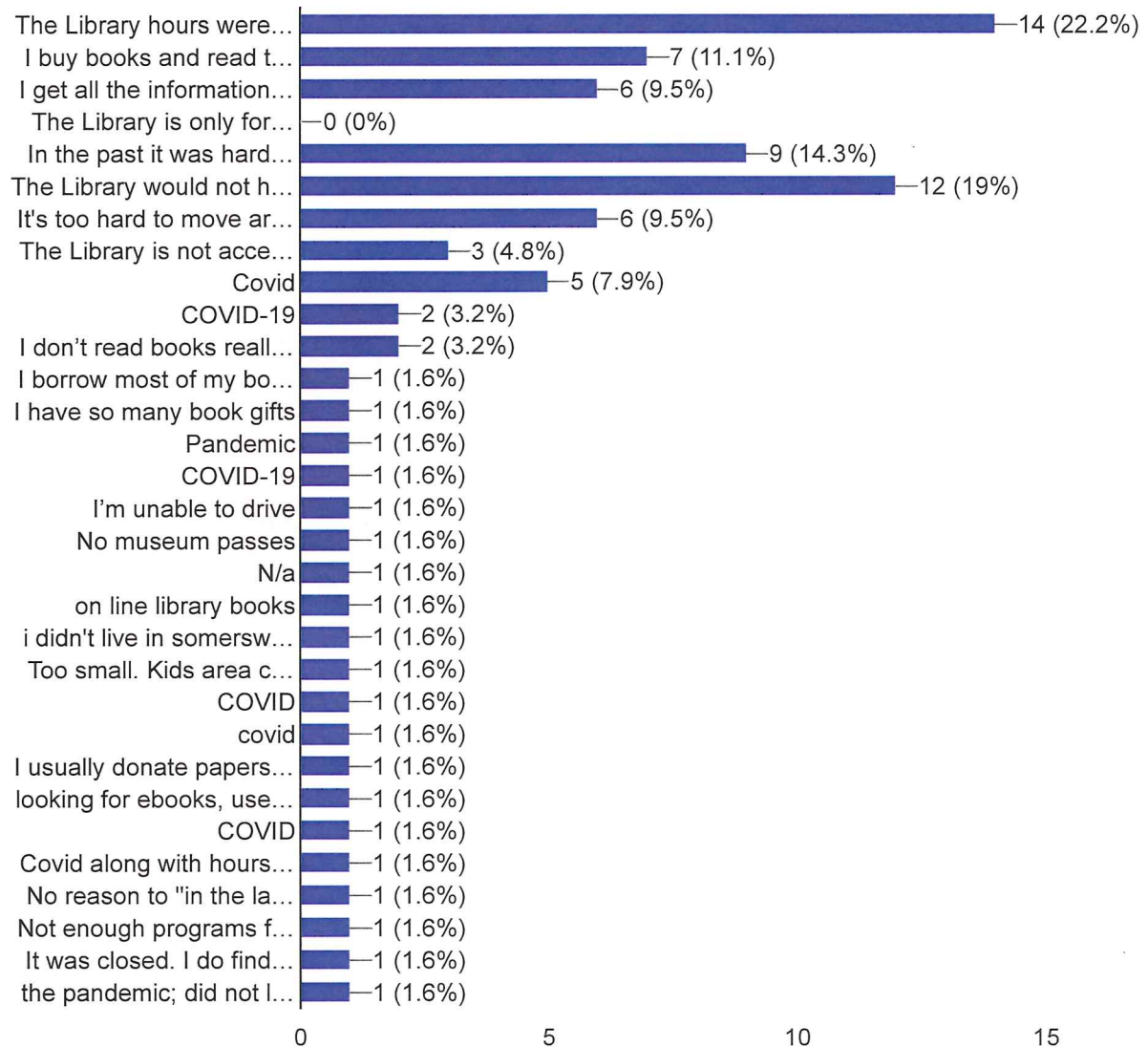
How often do you visit the library?

132 responses



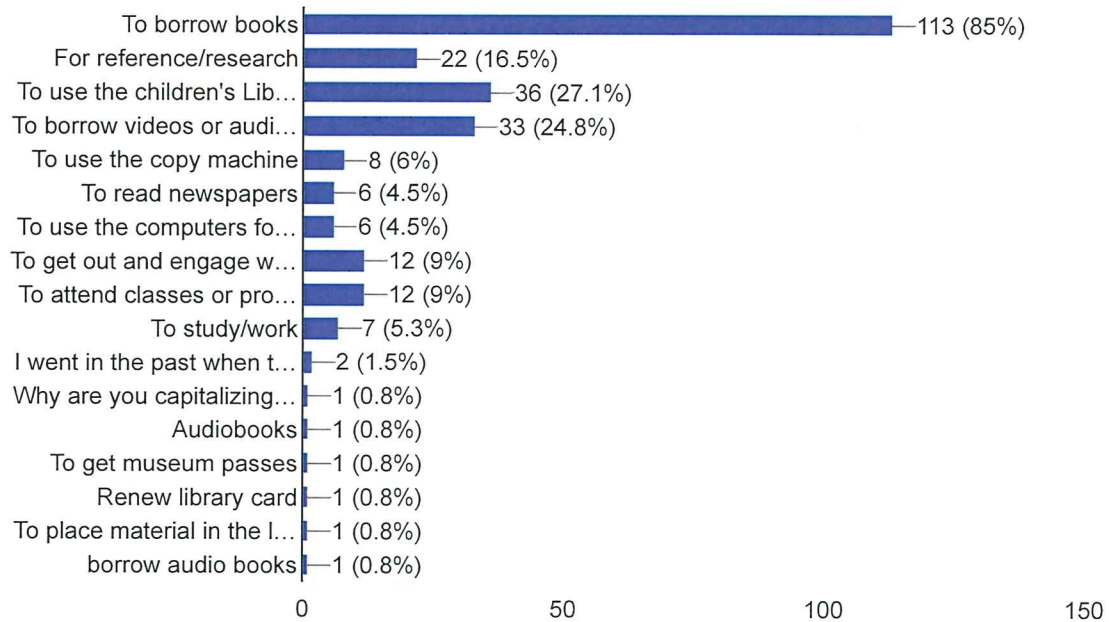
If you have not visited the Public Library in the last year, which of the following reasons describes why?

63 responses



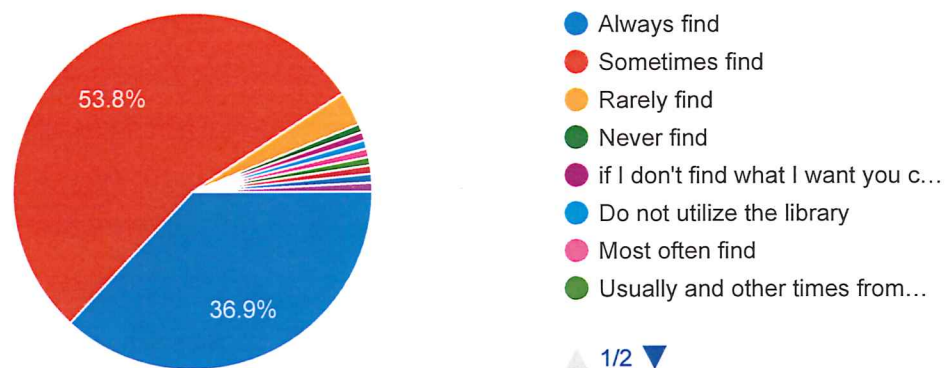
What are your main reasons for using the Library?

133 responses



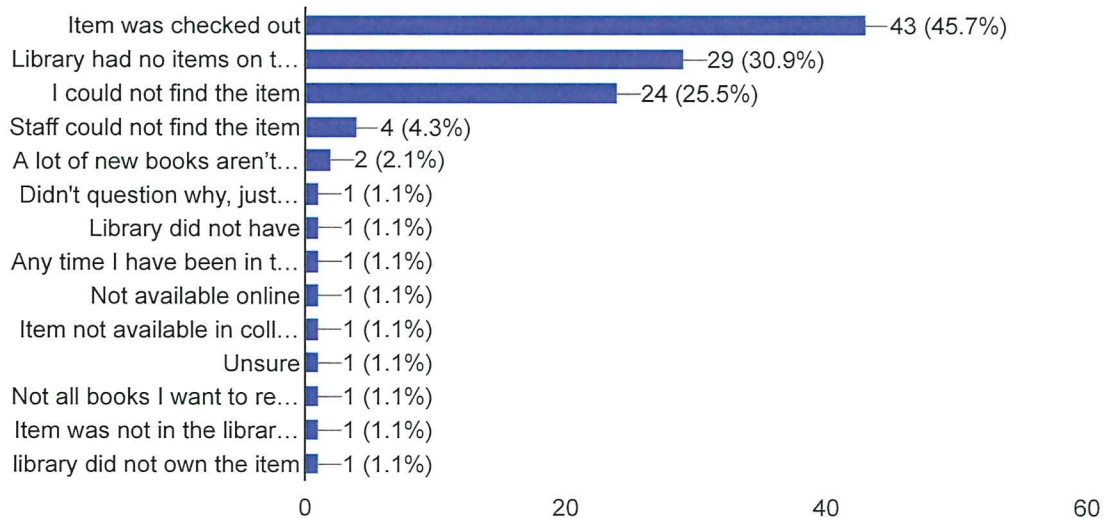
Do you usually find the books and other materials that you are looking for in the Library?

130 responses



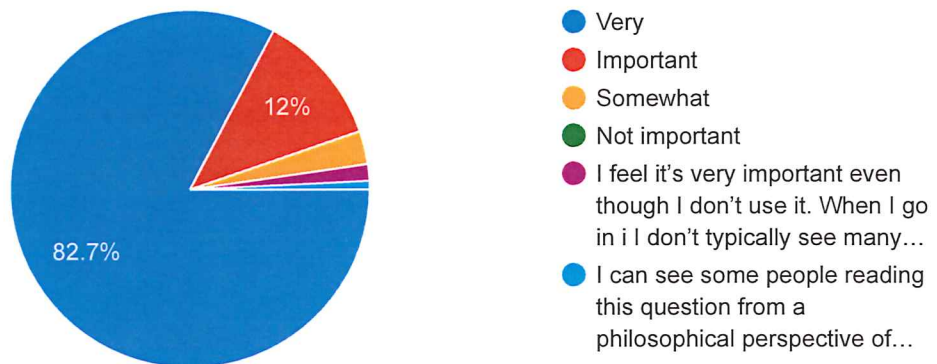
If you did not get what you were looking for on a prior visit, mark the reasons why.

94 responses



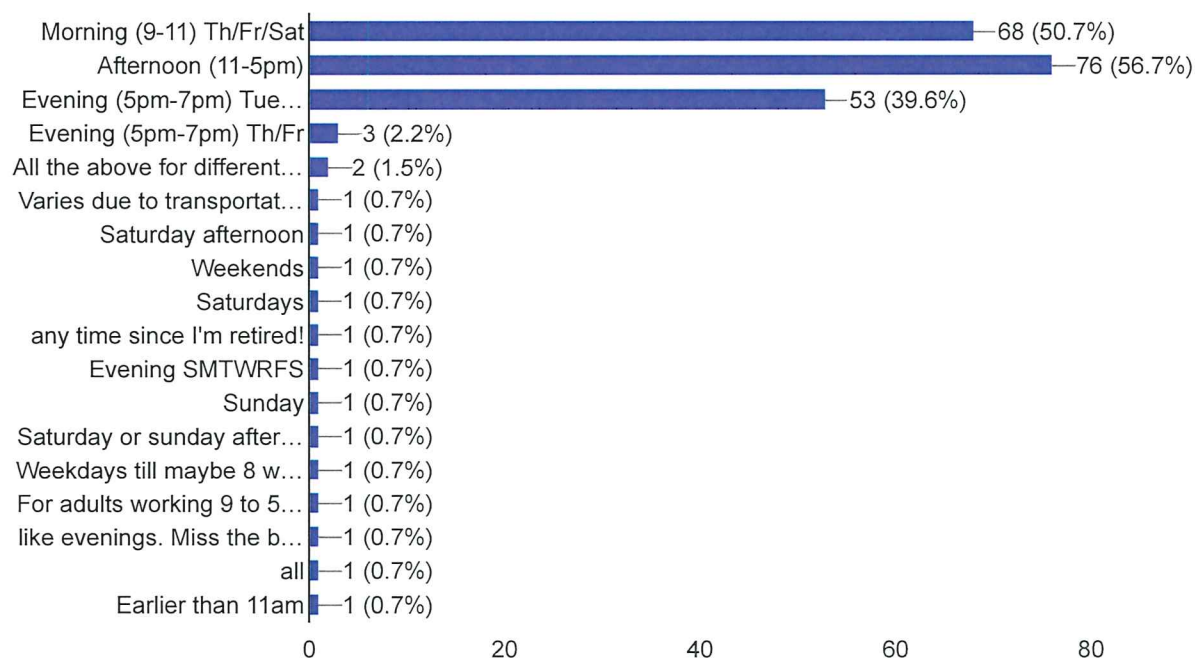
How important is the Library as a Community service

133 responses



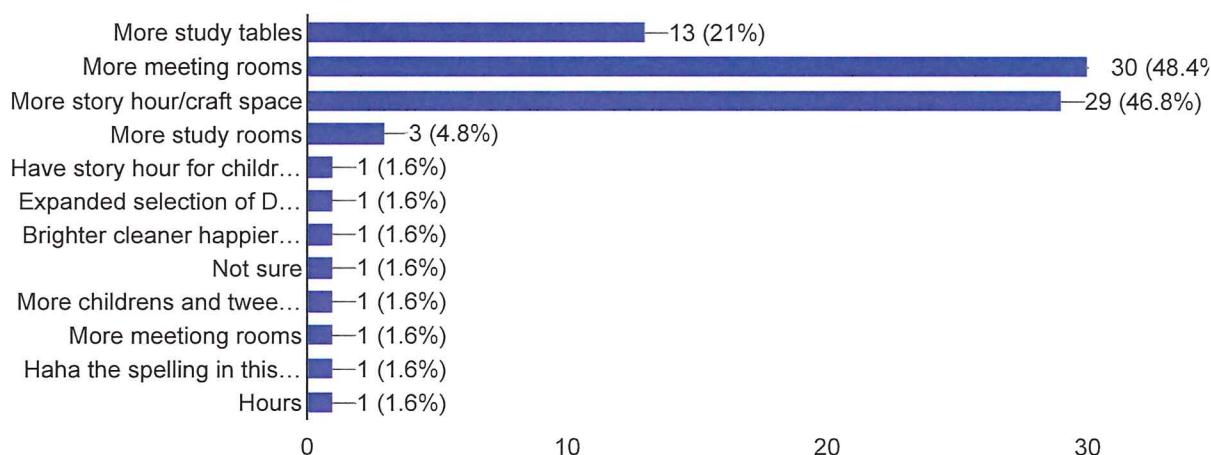
What is the best time for you to use the Library. Check as many options.

134 responses



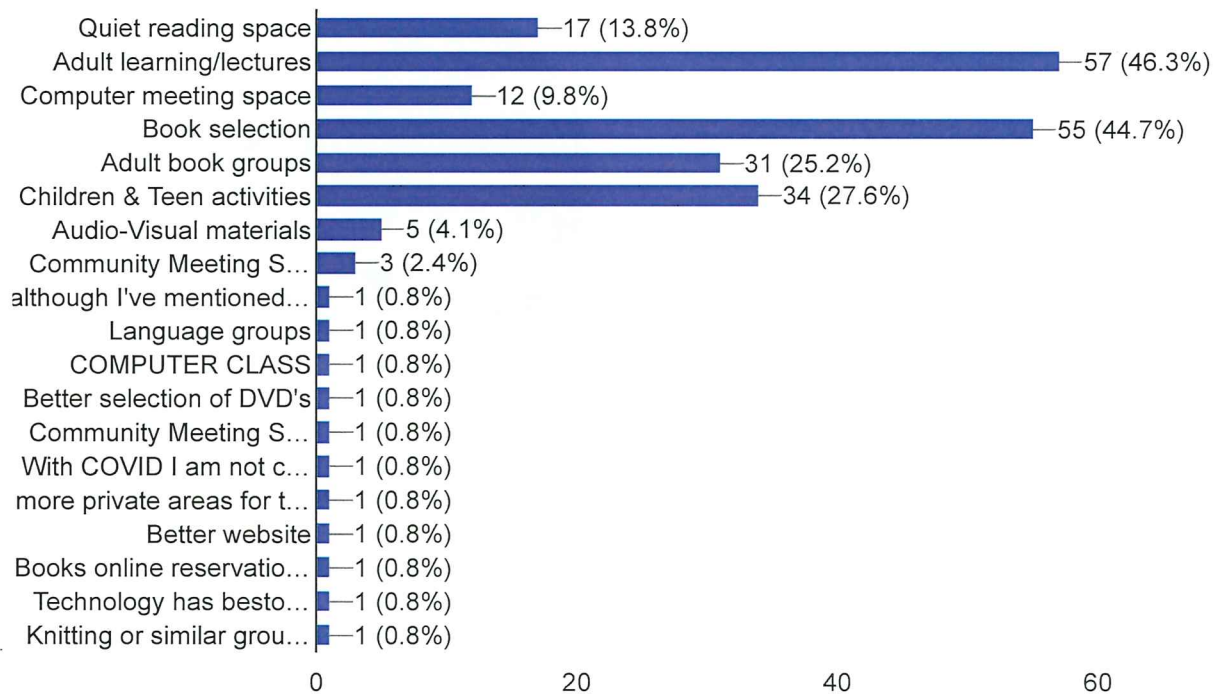
Mark all the areas in which you think the Library can improve.

62 responses



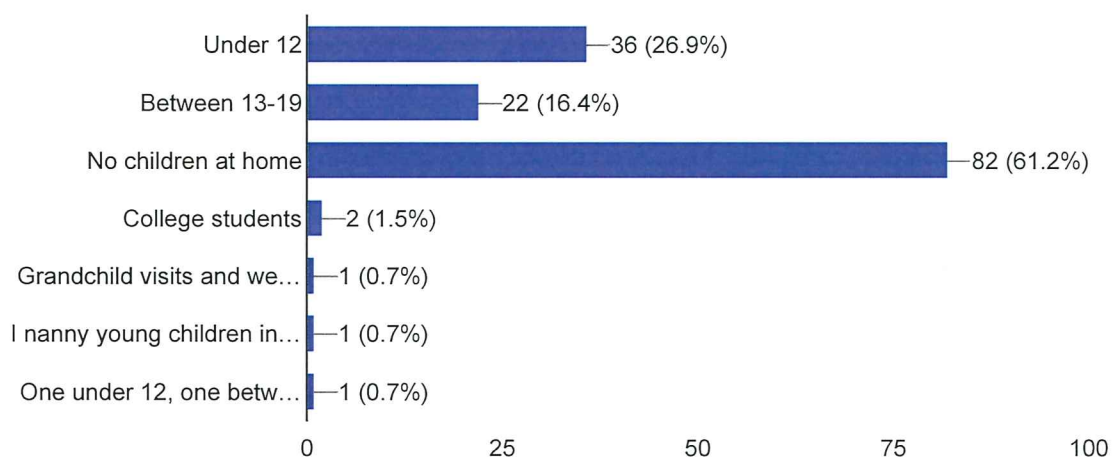
Which of the following services would you like to see expanded to better serve the needs of our growing Community?

123 responses



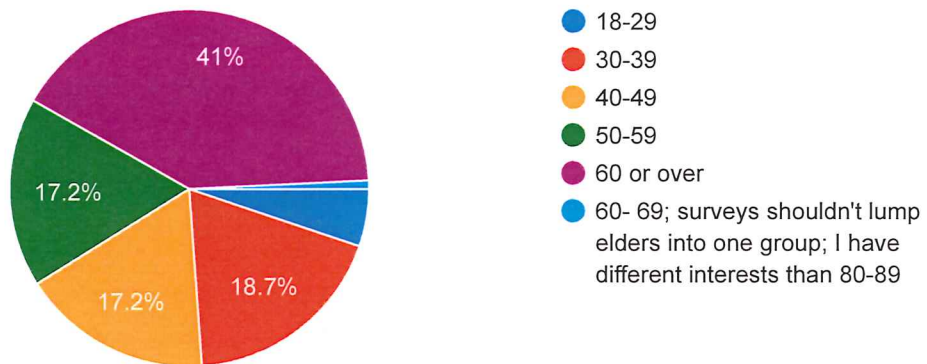
Do you have children in your household?

134 responses



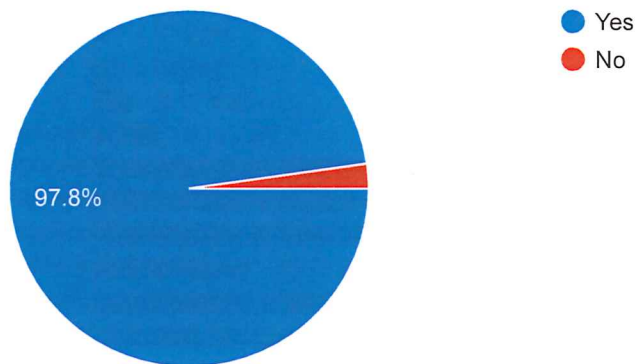
What is your age group?

134 responses



Do you have access to the Internet at home?

134 responses



Please list any additions you feel the Library could make to its collection of materials and services or any changes to its spaces

57 responses

give them more money to buy books

I would love to see a larger space for local agencies to meet and do trainings in.

Updated book selections! So many times cannot get books that are being read in book clubs online.

Updated Graphic Novels, Hoopla

I wish the children's area was upstairs and main space used as community space for meet conversation NOT a quiet space. Quite space could be downstairs and maybe rolling shelving to maximize storage space for books and media. I have been in Rochester and South Berwick libraries and have always thought they were very inviting and vibrant spaces. The children's area's are wonderful.

I will have to visit again to look around for other thoughts.

Reference books are not conveniently located near tables, where Fiction doesn't necessarily need the tablespaces. It is probably for a good reason but has never made

How does the Library meet your needs?

58 responses

it rocks

Books!

The library doesn't really have anything I need personally but I know it's a wonderful book resource, computer accessibility and safe space to be for many.

I usually find something I want to read

Variety of reading materials

I always find a good book or two to bring home

It's new fiction

The library has always been so important to me and met all my many needs for books and movies, and provided programs for my kids when they were little

What do you like best about the Library?

94 responses

Friendly staff

Books!

the people are nice give them a raise!

The books that they do have but stay current! Need travel books too.

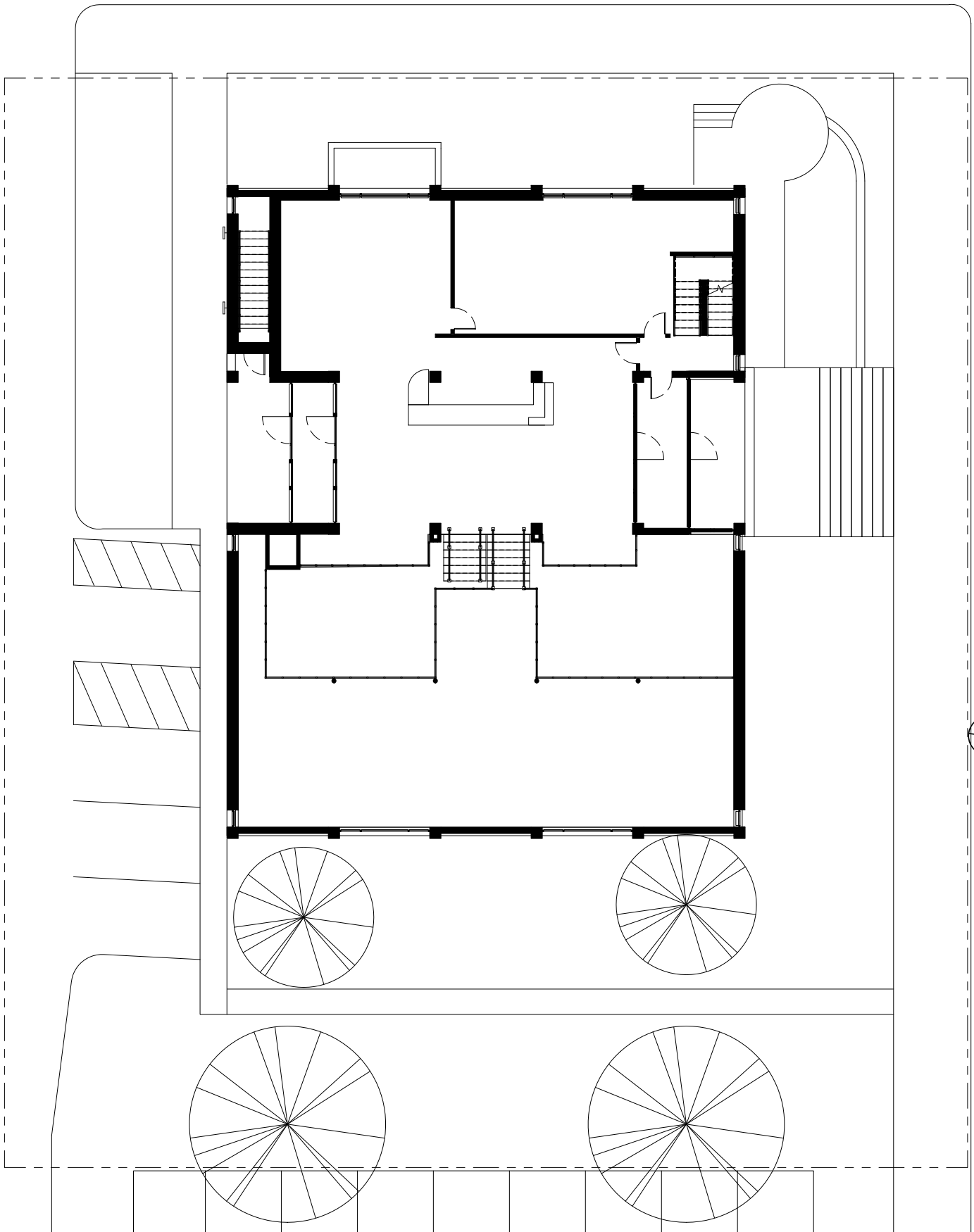
The building and the friendly staff

The space is amazing bright, airy and the staff is nice.

The staff

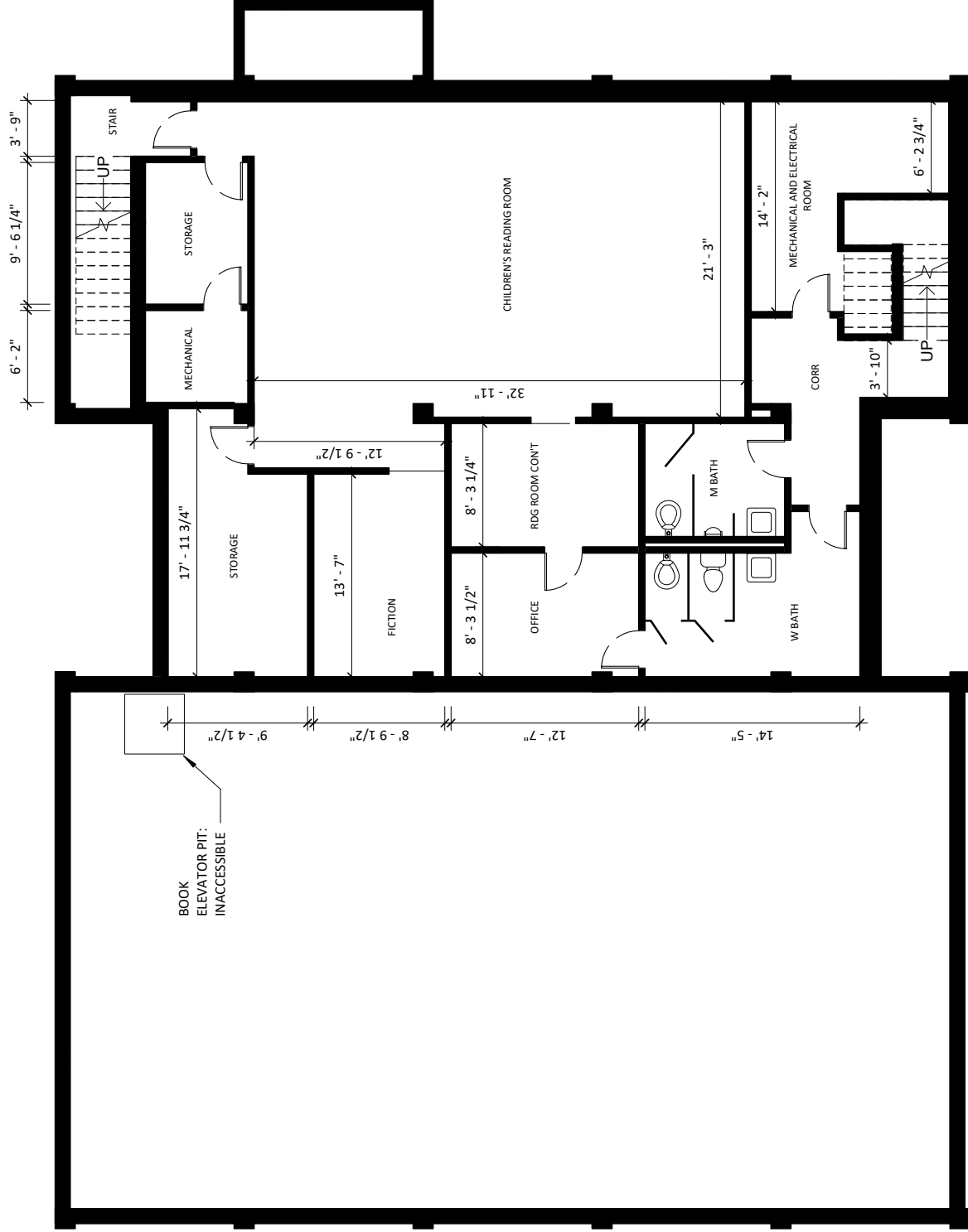
Everyone has always been friendly and helpful.

The staff is friendly



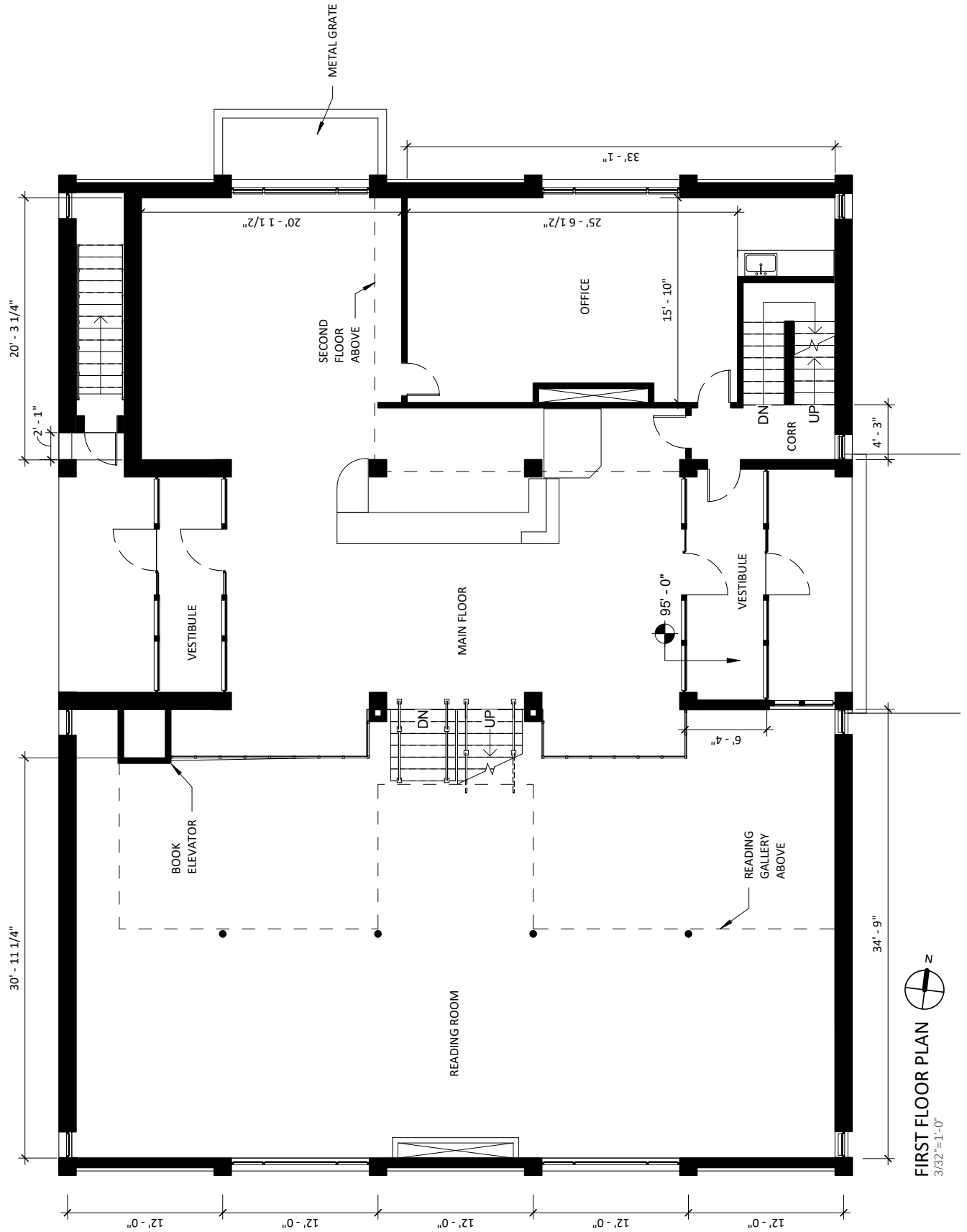
SITE PLAN
1/16"=1'-0"



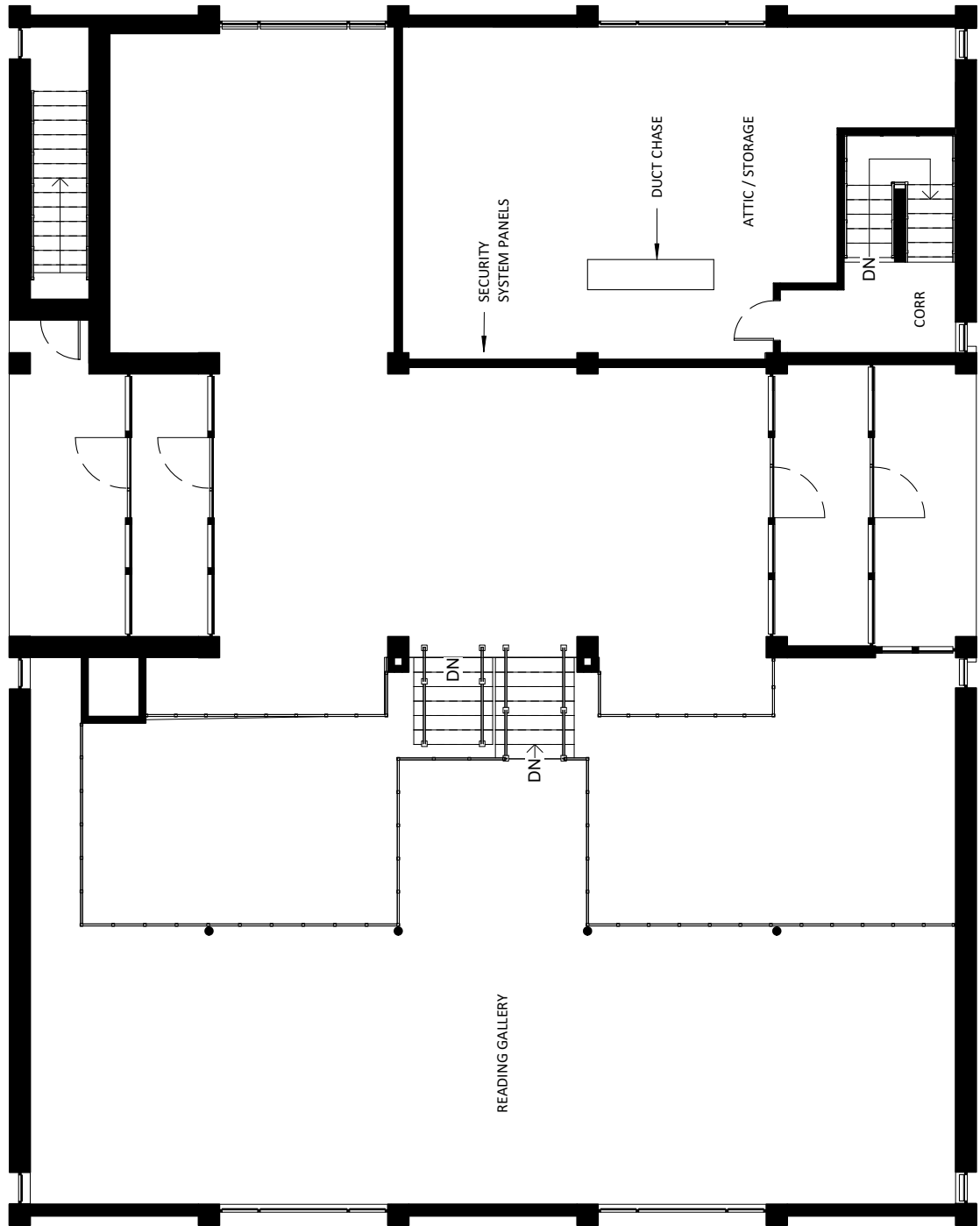


BASEMENT PLAN
3/32" = 1'-0"

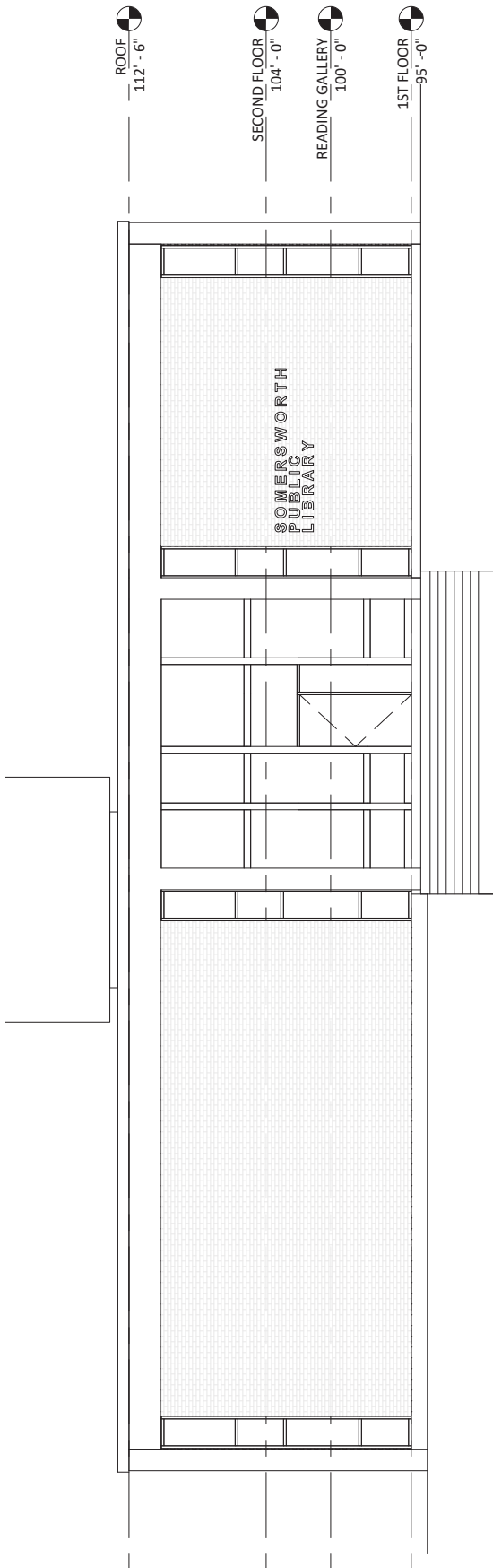
Existing Conditions Plans



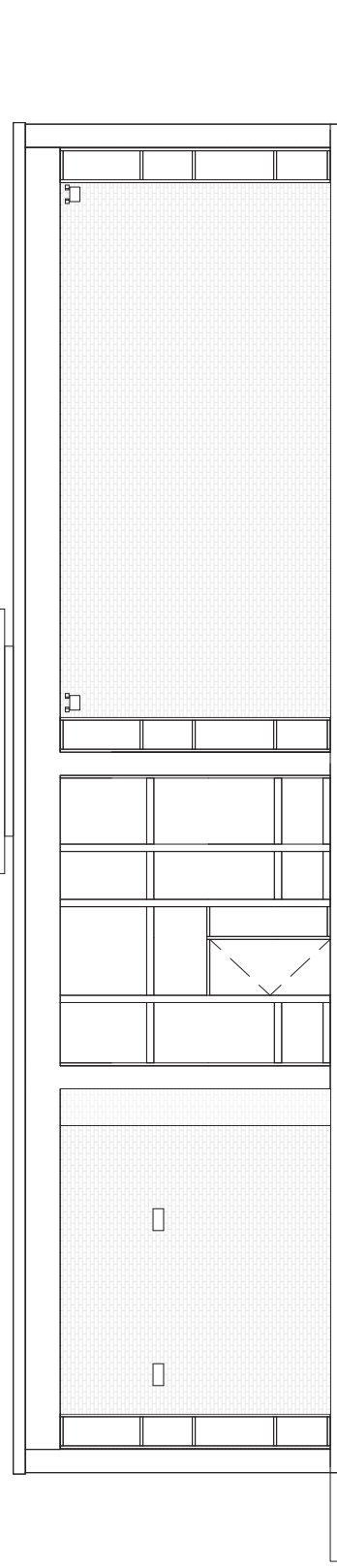
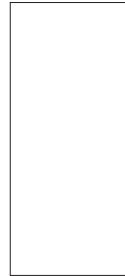
FIRST FLOOR PLAN
3/32"=1'-0"



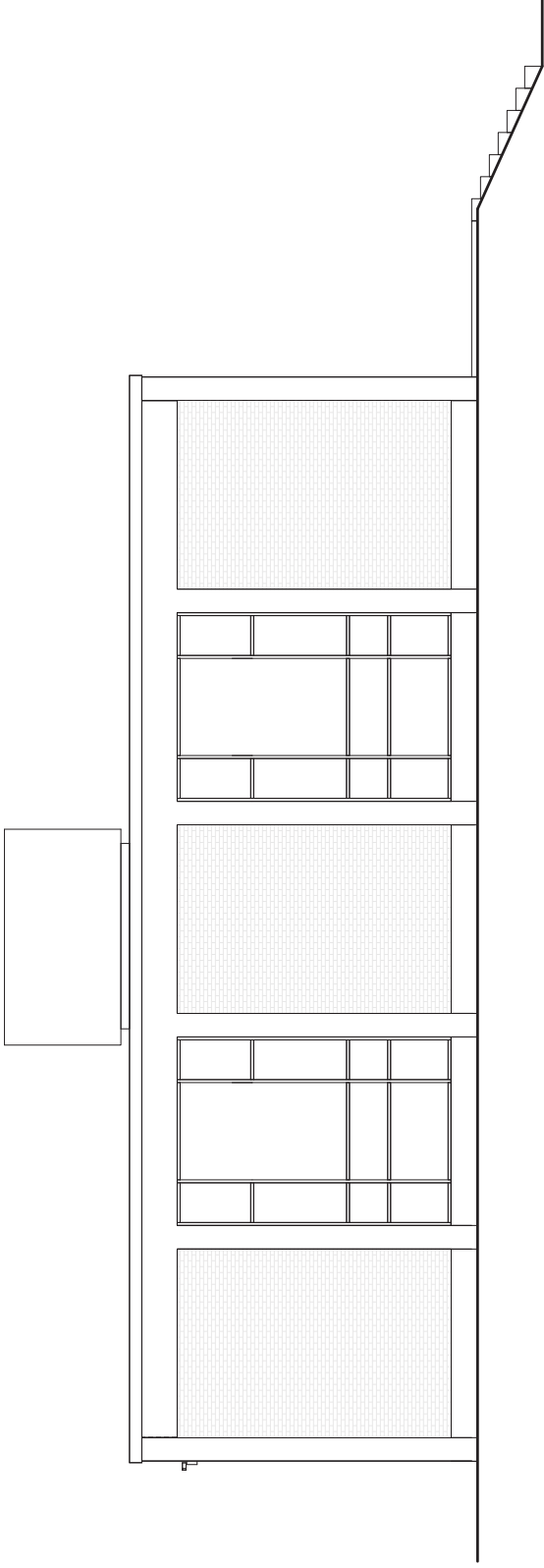
SECOND FLOOR PLAN
3/32"=1'-0"



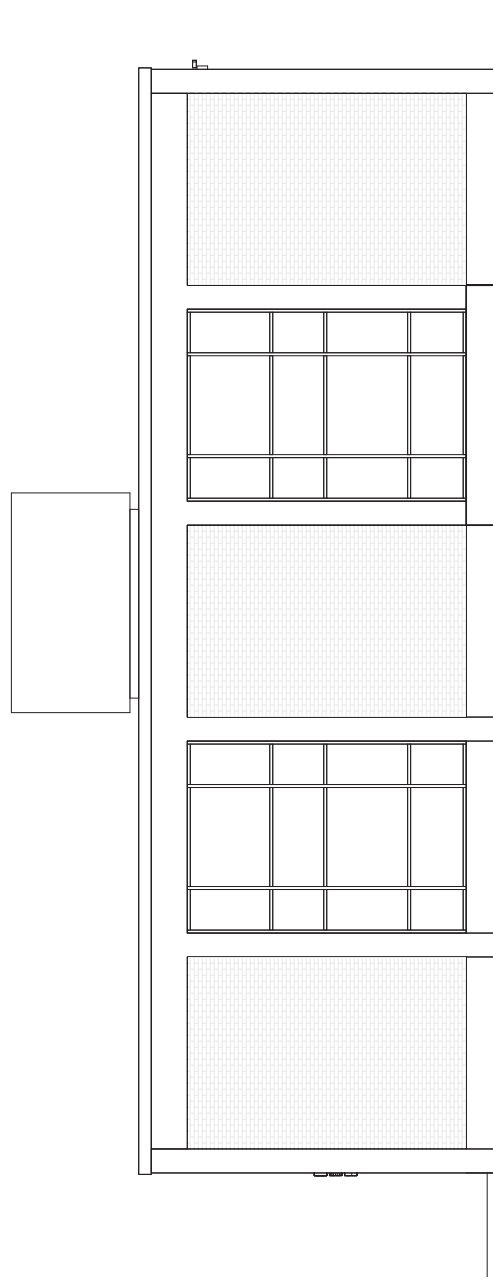
EXTERIOR ELEVATION - EAST
3/32"=1'-0"



EXTERIOR ELEVATION - WEST
3/32"=1'-0"



EXTERIOR ELEVATION - SOUTH
3/32"=1'-0"



EXTERIOR ELEVATION - NORTH
3/32"=1'-0"

Existing Conditions Elevations



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