

SCARSDALE PUBLIC LIBRARY

Renovation and Expansion

Schematic Design Report - July 20th, 2015

DattnerArchitects



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EXECUTIVE SUMMARY

Introduction

The Scarsdale Public Library's charming stone facade, set back graciously from Olmsted Road, is a real and symbolic presence at the center village life. The library houses an impressive collection of over 107,000 items with a robust circulation, runs extensive educational and recreational community programming, and is one of the main gathering places for the community. The ambition of this project in the words of the earlier Strategic Plan, upon which it is based, is to be "transformational." Since the last major enlargement, over 40 years ago, technology, social trends, and the role and functions of libraries have evolved. The new plan is intended to bring the institution into the 21st century, provide an environment that is flexible enough to accommodate future changes, while acknowledging the character and sense of place that the existing site and building represent.

Project Goals

The purpose of this phase is to develop a schematic building design based on the programming and planning priorities set forth in the Strategic Plan and confirmed with some modifications in the Pre-Schematic Report. As stated by the Strategic Plan, the project goals are:

- Meet user's educational, informational, and recreational needs
- Strengthen the Library's role as a center of the community
- Improve the library experience for individual patrons
- Embrace technology while evaluating traditional services and collections
- Maximize staff potential
- Make entire building accessible as required by law
- Incorporate sustainable design into library planning

Existing Conditions

The original project scope defined by the village of Scarsdale assumed that the library buildings and site were in good condition, and that the renovation and expansion would not, with the exception of the roofs, require significant replacement or upgrade of existing building or site elements. A basic visual survey of existing conditions was performed during the initial pre-schematic phase focusing on structure, MEP systems, general condition of the building envelope, and are described in that report. Our initial conclusion was that portions of the existing site and building infrastructure would need to be modified and upgraded to bring the building up to current standards and make the expansion possible.

During the schematic design phase, the design team has selectively updated these findings as the requirements of the new design became clearer. In addition, the village of Scarsdale commissioned a Hazardous Material survey to describe potential abatement areas that will become necessary when construction proceeds. Additional existing conditions information is contained in the various narratives contained in the report. Our general assessment is that while the basic structure and envelope are sound, and that portions of the MEP infrastructure may be reused, the degree of replacement will be more extensive than originally assumed, including the following:

- **Parking area:** The parking island to the west shall also be modified to accommodate a concrete pad and enclosure for emergency generator. While no additional parking is being considered at this point, an expansion would likely require new grading and storm water controls.
- **Site work:** To accommodate program uses of the lower level, exteriors stairs and site grading and excavation will be required. New additions to the south and west will require some regrading and relocation of storm water manholes and pipes.
- **Storm water management:** Rain gardens and infrastructure are being relocated as required to accommodate access or building additions the various design options. Additional mitigation is required for new construction within wetland setbacks.
- **Exterior Envelope:** Some of the lintels at masonry openings are cracked and will require replacement, new flashing, and water-proofing. The original casement windows in the 1950s buildings and the glass storefront in the 1970s building will be replaced for energy performance. Portions of the exterior wall will need to be re-insulated.
- **Structural:** Portions of the building will have to be structurally modified in order to permit programmatic and functional changes: modifications of a portion of the roof and structure to accommodate new code compliant stairs and elevator; modifications of the basement slab and foundation wall to make the lower level suitable for use; and removal of the self-supporting structural stacks

to allow for improved planning flexibility, daylighting, and ease of circulation.

- **Mechanical distribution:** New ductwork is required to distribute air to the renovated spaces due to the extent of plan reconfiguration. In addition, the underfloor distribution in the 1970s addition are made of cement asbestos air pipe. The design team recommends abandoning this system in place and replacing it with a ceiling-based ductwork system.
- **Plumbing Distribution:** Most plumbing fixtures are being relocated due to accessibility and planning requirements.
- **Electric Distribution:** Data and power distribution need to be reconfigured due to planning requirements, particularly the redistribution of seating and staff areas, new mechanical systems, and lighting upgrades.

Changes to the scope of work will be finalized prior to starting the next phase of the design when the extent of renovation and new construction has been approved.

Project Approach

The development of the project is described in the project schedule (see appendix) and as summarized below.

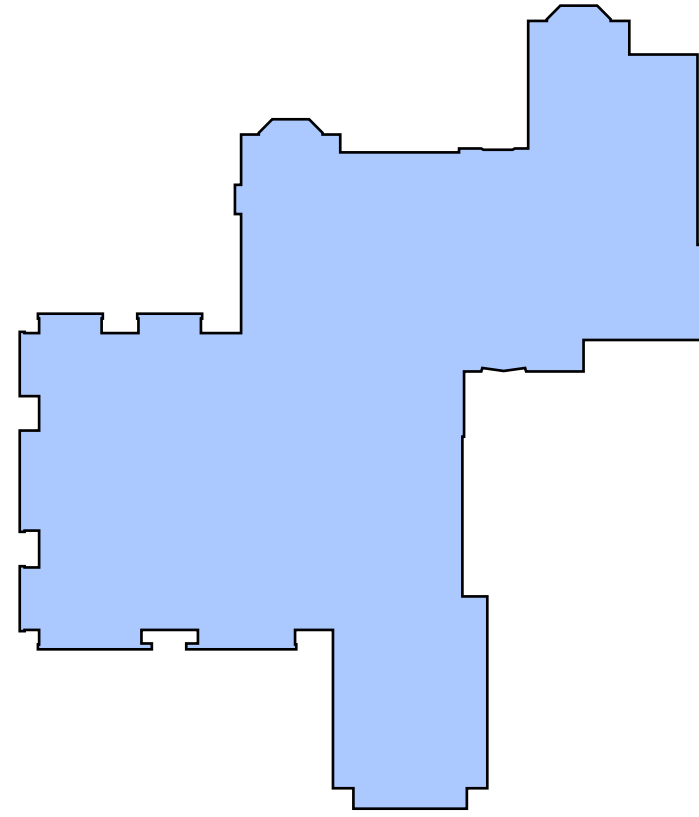
Due Diligence

A Pre-Schematic Report was issued and approved by the Scarsdale Public Library in May 2015. The purpose of the phase was to develop the project program based on an understanding of the existing building and its infrastructure; the library's current functionality and its future goals; and the library's current and projected collection size and seating capacity. In this effort, existing documentation, drawings, and the master plan were reviewed. Site visits, staff interviews, and meetings were conducted with the Library Building Committee.

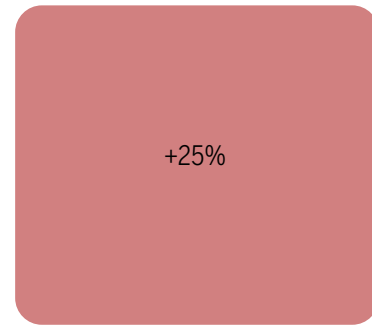
Programming

Following the submission of the Pre-Schematic Report, the Scarsdale Public Library authorized the Schematic Design to proceed. During this phase, the design team developed a building based on the findings and recommendations of the Pre-Schematic Report. The design team met with the Library Building Committee several times to review the progress of the work, refining the program priorities, modifying the plans, and addressing operational and functional concerns. Since furniture plays such a critical programmatic and spatial role, we also carried out test fits of seating and books stacks, and developed illustrative furniture layouts for all the spaces.

Ground Floor:
18,210 sf
Total Gross:
31,160 sf



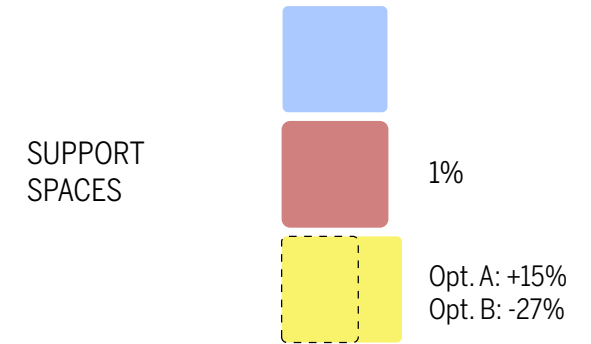
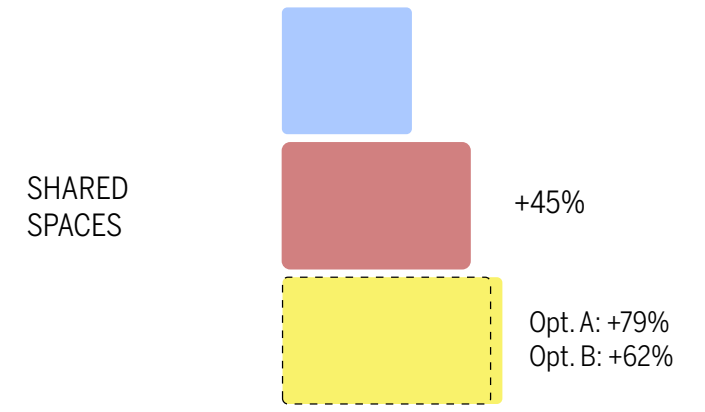
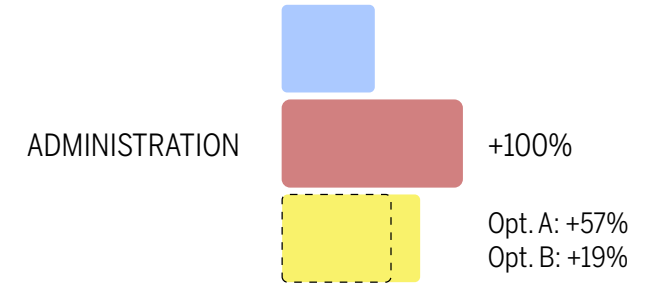
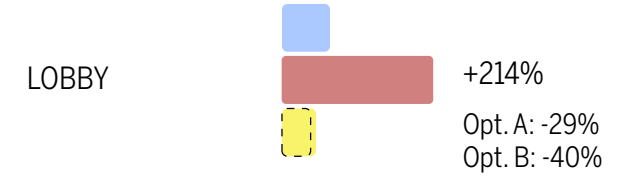
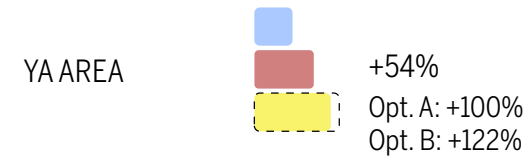
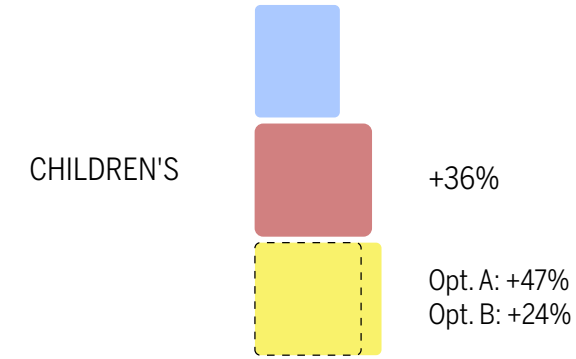
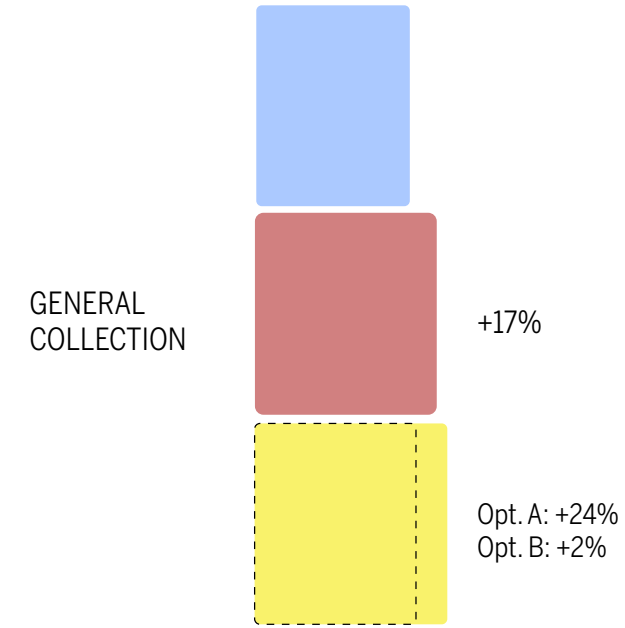
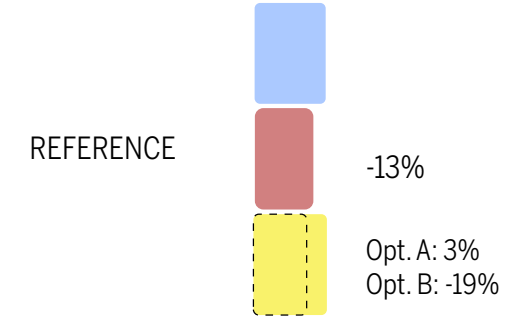
Minimum sf for
Addition:
7,660 sf



Minimum-
Maximum sf for
Addition:
4111 sf - 5700 sf



- Existing
- Master Plan
- Proposed - Opt. A
- Proposed - Opt. B



Design

The starting point for the proposed design is the existing site and building. The original library, with its domestic scale and emblematic stone walls, is a recognizable public icon, and as such it has been modified externally as little as possible. The second-floor roof will remain the highest and most visible point of the new building and the addition will not significantly change the view from Olmsted Road. The new additions retain and strengthen the elegant, modern horizontal lines of the 1970s addition, while subtly marking its differences by changes in materials and an increased degree of openness. A similar balance between deference to the existing building and the assertion of something new and exciting can also be seen in its attitude toward the site. Each of the new additions integrates itself with landscape features, such as the majestic trees framing the entrance plaza, the new basement light courts concealed within the expanse of the front lawn, and the reading galleries that take advantage of the natural views toward the pond and wooded areas. The proposed design opens up the library interior to the site, allowing in daylight and views to establish a strong new connection between inside and outside that was previously ignored or minimized.

Beyond its integration with the site, the proposed design is also based on a series of general ideas that guide specific design decisions:

- **Flexibility:** Over time, programming interests and new ideas will influence the plan. While we cannot anticipate the future, we can plan for change. By opening up the floor plan and carefully locating fixed elements such as toilet and circulation cores, major areas of the library can be adapted as needed. The large meeting rooms, including the Scott Room are sub dividable into smaller spaces allowing a range of event and meeting sizes from approximately 20 to approximately 175 persons.
- **Autonomy:** Traditional library and community spaces need to coexist as overlapping yet separable things. During library hours, meeting spaces must house library activities. After hours, these same spaces must be able to function separately as a stand-alone entity without supervision from library staff, keeping the rest of the library spaces off limits to users. In addition, this group of meeting rooms, connected by the lobby and café area, will feel like a place in its own right.
- **Scalability.** In order to be able to meet a range of budget options, the design has been conceived as a “kit of parts” that can be modified as needed to fit into a variety of scenarios. The size and cost of the project is flexible, to a degree, based on available resources. While the ultimate configuration of the building and its programming potential and character will vary, the project is not dependent on a single all-or-nothing design. The parts--such as the new meeting rooms, reading gallery, mezzanine, vertical circulation, outdoor reading terrace, basement renovation and others--are diagrammatically illustrated in the design drawings and accounted for separately in the cost estimate.
- **Technology:** All the meeting rooms, from the large Scott room to the smallest four-person group study rooms, will have data connections, flat or projection screens, and in some cases audio- and video-conferencing. A technology suite will provide networked stations for individual and instructional use, home office printing, and production support, as well as a “maker space” for a variety of technology-based projects and programming.

Options

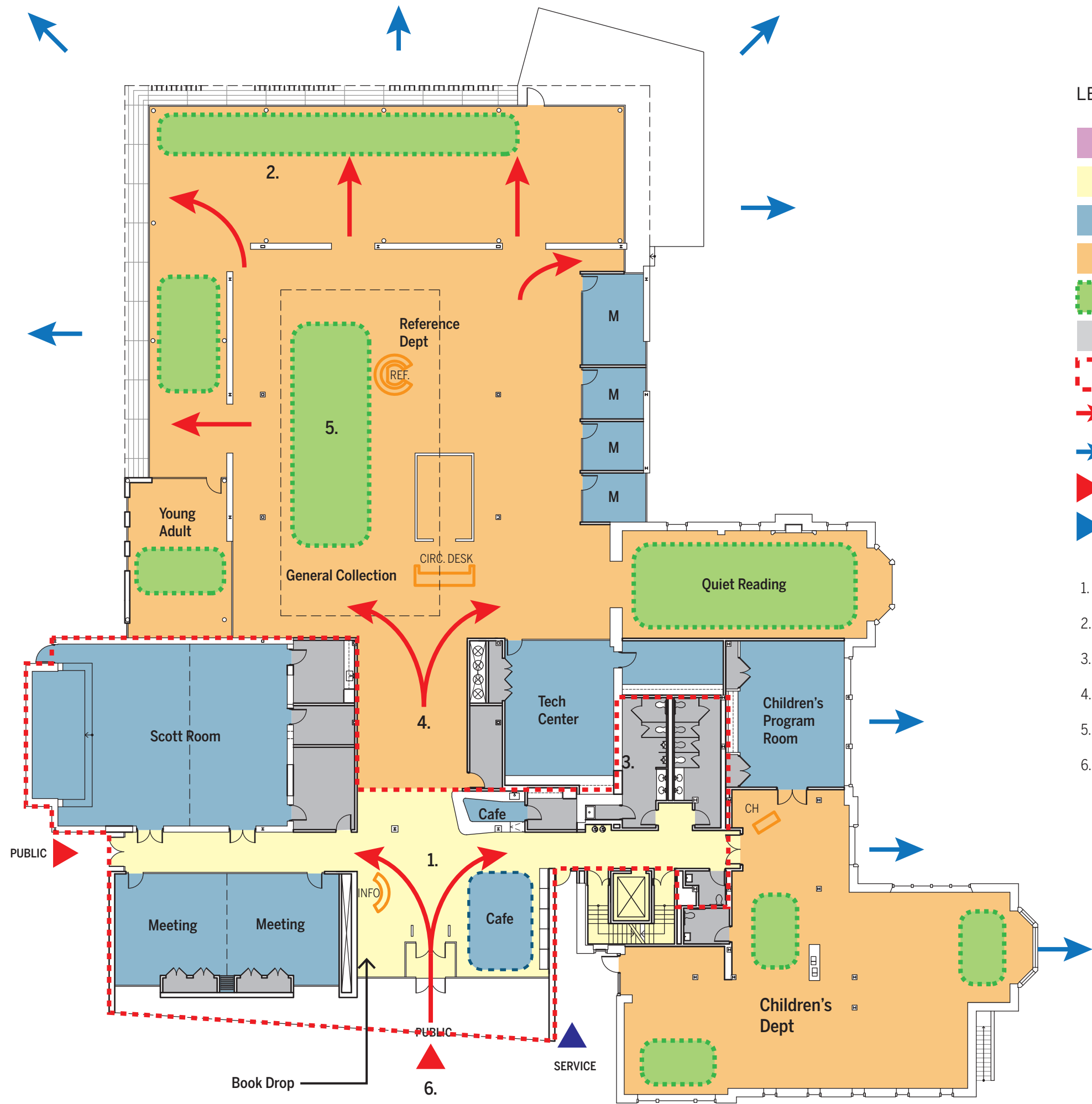
Based on the “kit of parts” concept, two options were developed: Option A is the desired fully realized program; Option B is a scaled-back version that retains the essential programmatic components of the project but sacrifices some of the features of the larger version, as well as programming flexibility and space. It is possible, based on the results of the library’s fundraising campaign, that a third, hybrid option, lying somewhere between these two choices, becomes the actual design choice.

Compared to Option A, Option B scales back or eliminates several features:

1. A smaller reading gallery reduces the new collection and seating areas.
2. Collection shelving becomes higher and less accessible, and typical aisle width becomes narrower.
3. The outdoor reading deck is eliminated.
4. The designated “quiet reading” area is eliminated.
5. The structural mezzanine remains in place. While a very efficient means of book storage, it prevents opening up the plan to light and views, and severely limits future flexibility.
6. The entrance lobby and café area are reduced.
7. Modifications to the lower level minimized. Space for future automated book sorting is eliminated. Administrative space will be moved from its planned location at this level and, instead, relocated to the main level, where it will occupy space assigned to other programs.
8. The Children’s Department area is reduced. (That space would be taken by staff office.)
9. Various upgrades to the existing building mechanical systems are eliminated.
10. Alternate energy options (geothermal well and roof top photovoltaic panels) are eliminated.

Accessibility

In order to be welcoming to all segments of the community and to bring the library into code compliance, the planned modifications to the building are intended to make it as accessible as possible for the public and staff. Grouping almost all public spaces on a single level will make navigating the library an easy experience for a range of people with mobility challenges (not only the physically impaired but seniors and parents with young children). The consolidation of various stairways, the elimination of a staff mezzanine level, and the introduction of a new central stair and elevator will make all the floors accessible. Other changes include the redesign of restrooms, door widths and locations to individual spaces, and the reconfiguration of the book stack aisles. The redesigned main entrance plaza shall be barrier-free and maintain the current space for curb-side drop off and an accessible path to designated handicapped parking spaces.



LEGEND

- ADMIN
- CIRCULATION
- SHARED / GATHERING
- COLLECTION
- SEATING
- SERVICE SUPPORT
- AFTER HOURS
- PUBLIC CIRCULATION
- DAYLIGHT / VIEWS
- PUBLIC ENTRANCE
- SERVICE ENTRANCE

1. Entrance to Community Space
2. Reading Gallery
3. Vertical Circulation
4. Cafe/Popular Collection
5. Open/Flexible Plan
6. Entry Plaza



Sustainability

The proposed design incorporates features that will improve environmental impact, occupant comfort, and operating costs.

Some of these measures extend beyond the building itself to the site. Storm water will be responsibly managed through rain gardens for the existing building and vegetated roofs on the new additions. The east entry plaza shall be re-designed with permeable pavers which will help restore the natural water balance of the site. The quality of the existing wetlands shall be improved by introducing new plantings.

Water conservation is addressed by replacing plumbing fixtures with high efficiency fixtures. Energy conservation is achieved by increasing building insulation; using high performance window glazing; introducing natural daylighting; an option for a photovoltaic array on the roof; an option for geothermal wells and upgrading to more efficient light fixtures with controls.

The health and comfort of individuals are promoted through the selection of materials and products that minimize the use and generation of harmful materials.

Additionally, the library building committee has asked that a LEED (Leadership in Energy and Environmental Design) feasibility study be performed. The purpose is to determine whether pursuing LEED is possible and a sensible approach for this project. LEED certification is administered by the not-for-profit U.S. Green Building Council, which recognizes buildings that are constructed according to a national "green" standard of excellence. While all LEED-certified buildings are sustainably designed, not all environmentally conscious and high-performing buildings follow LEED. It should therefore be considered less as a path to an environmental design, and more as an optional benchmarking standard that allows a project to measure its performance in relation to other LEED projects.

The attached sustainable design report describes the planned sustainable design features and the anticipated LEED performance of the project. If all the LEED prerequisites are met, the project is eligible for certification and could potentially earn LEED Silver certification. However, there are a number of substantial challenges:

- The minimum energy performance prerequisite will be difficult to achieve as the existing mechanical equipment is being re-used. The current system appears to have a lower efficiency than the required baseline. Replacement of baseline systems could be necessary.
- The minimum indoor air quality performance prerequisite is also a challenge to meet, as the age and configuration of the existing systems makes it unlikely that the ventilation rates are being met. Replacement of the existing air distribution would be required and possibly addition to equipment capacity and outdoor air supply.
- Phased construction will make the LEED process drawn out and cumbersome. A phased project will take considerably longer to build and may exceed the period under which the current version of LEED may apply.

While LEED certification remains a possibility, given the challenges and associated costs, we feel a more beneficial approach would be to focus on key improvements which offer the most value to the project. The sustainability report has an initial list of key opportunities for this project which can be developed as the design progresses. There are many exciting opportunities for the Scarsdale Public Library to reduce environmental impact and enhance occupant health and make a clear public statement about sustainable design.

Phasing

The library has requested that we consider a phased construction of the project to ensure that continuous service could be provided on site during the renovation. We have proposed a two phase approach, with major infrastructure changes (toilets, vertical circulation), the new meeting spaces and renovated and reconfigured children's department in Phase I and the collection areas in Phase II. A temporary entrance from the south parking lot would be provided in phase I and the restrooms temporarily reconfigured to provide access from the west. In addition to the early modification of the building just described, phase I would also include later "mini-phases" such as the demolition of the existing restrooms once new Code compliant ones are built, and the renovation of the area they currently occupy. During the work, portions of the administrative and children's department program would need to be relocated somewhere within the building. Since the Scott room is the only available swing space, it would serve as a temporary relocation space for some of the program being impacted by the early phase of construction.

While phasing the project may in principal satisfy the desire to maintain library activities on site, it presents a series of considerable challenges:

Due to the current configuration and age of the existing building as well as the large amount of intrusive modifications, phasing the project will be rather complicated. Phase I as suggested above would really be a succession of smaller phases involving partial relocations of program and an incremental approach to construction.

- A number of temporary modifications will be required to keep the building functional during construction.
- A portion of the parking lot will have to be reserved for equipment and the construction crew.
- Site safety in terms of circulation and indoor air quality will be a challenge to maintain. (Heavy equipment, construction related traffic, Hazardous material abatement etc.)
- The construction schedule will be significantly extended, multiplying the duration in which the public and neighbors are inconvenienced by construction.
- Added complexity, temporary work and longer schedules will add to the project cost. While more would have to be known about the design, technical and programming details of a phased project, we have provided an order of magnitude cost increase should phasing be required.

Based on all these concerns, it is our strong recommendation that the project be built in a single phase. If at all possible, alternate off site arrangement for continued services, such as mobile vans or temporary rental space should be explored. We feel this is critical for achieving the best results at a lower cost and with less overall disruption to the community and neighborhood due to a more expedited schedule.

Cost Estimate

A schematic construction cost estimate has been prepared by Toscano Clements Toscano (see Appendix for cost estimate dated 8.05.15).

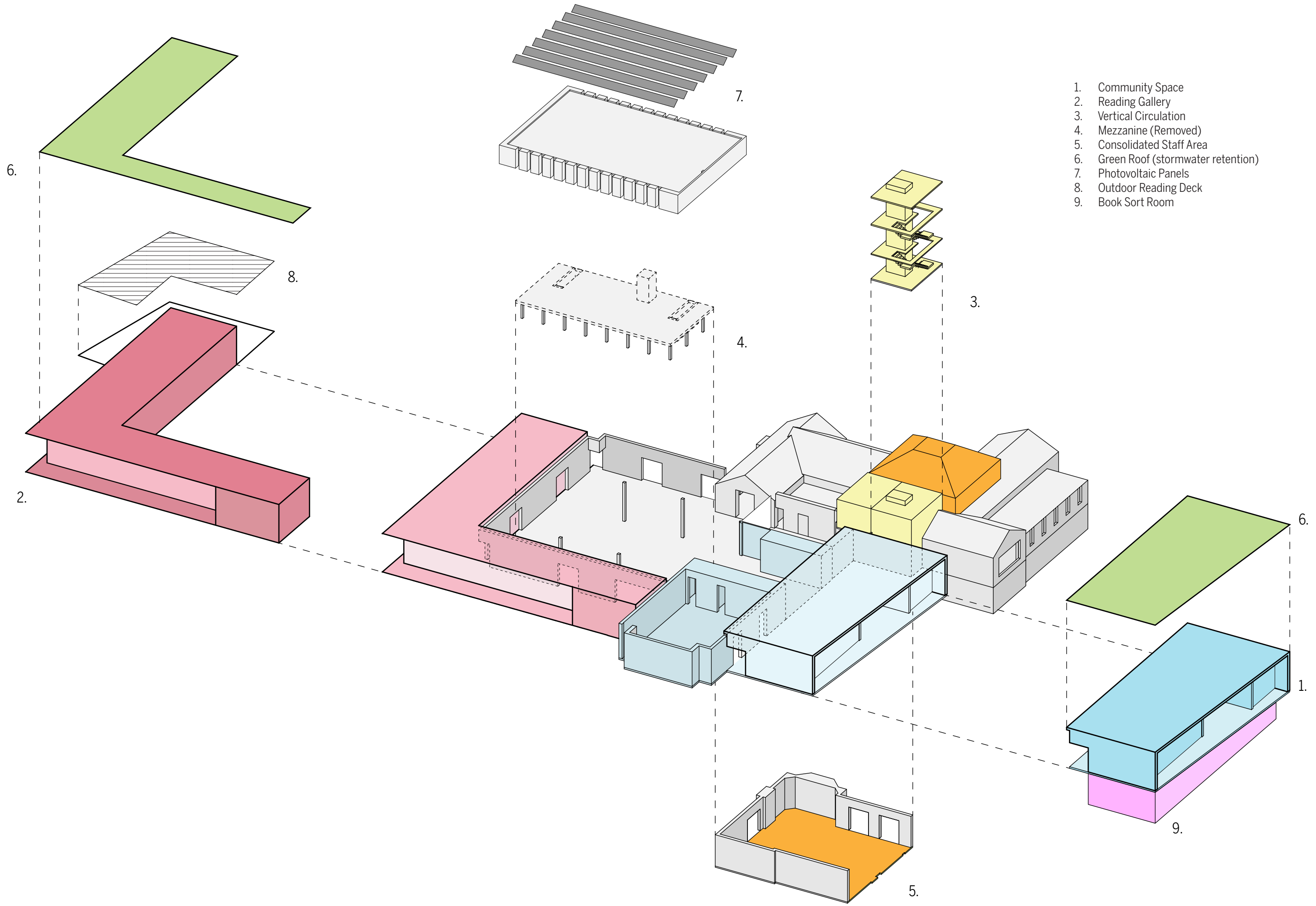
The estimate has priced construction trade material and labor costs for both Option A and B. Markups have been added to the trade costs. The General Conditions, overhead and profit cover the costs and profit for the contractor to perform the project. Design contingency is a percentage allotted to include additional design details to be developed at the next phases of design. Bid contingency addresses exceptional fluctuations in the local construction market due to the anticipated release of FEMA, Sandy related reconstruction funds. This contingency can be added to escalation, which is a broader estimate in the change in cost over time. Owner furnished items, not provided by the general contractor such as the AV, IT equipment and wiring, as well as furniture, are also noted separately from construction cost total (see Appendix for estimates).

The project estimate includes options based on Single phased as Two Phase construction. Phased construction will be more complex, more costly and take longer. The estimate only includes construction costs. Temporary library relocation costs, if any, for single phase project are not included in the scope of this study. Other "soft costs" such as professional fees, moving, regulatory fees, legal costs, and others are not included in the estimate.

Additionally, the estimate has been divided into our proposal's "kit of parts" concept. Each of the ten parts (Community Facility & Green Roof, Reading Gallery & Green Roof, Vertical Circulation, Mezzanine Removal, Basement Floor Renovation, Collections, Second Floor Administrative, Photovoltaic Panels, Outdoor Reading Deck and Future Book Sorting Room) have been priced individually. The kit of parts is intended for general "order of magnitude" budget pricing only. It is intended to assist the library in determining the overall scope of the project prior to proceeding with the next design phases. Subsequent estimates will not include this breakdown.

FF & E

The schematic furniture estimate was based off of the furniture and shelving layouts plans. Pricing is based on a range of specific furniture items, for their representative design aesthetic and level of quality. Actual furniture selections will be made at subsequent phases of design.



1. Community Space
2. Reading Gallery
3. Vertical Circulation
4. Mezzanine (Removed)
5. Consolidated Staff Area
6. Green Roof (stormwater retention)
7. Photovoltaic Panels
8. Outdoor Reading Deck
9. Book Sort Room

Code Analysis

1. Applicable Code:
 - a. 2010 Building Code of New York State
 - i. Property Maintenance Code of NYS
 - ii. Electrical – Chapter 27
 - iii. Fuel Gas Code of NYS
 - iv. Mechanical Code of NYS
 - v. Plumbing Code of NYS
 - vi. Fire Code of NYS
 - vii. Energy Conservation Construction Code of NYS
 - viii. Existing Building Code of NYS
 - b. Scarsdale Village Code
2. Chapter 3 Use and Occupancy Classification:
 - a. Assembly Group A – A3
 - b. Business Group B (spaces < 5000 sf and enclosed offices)
3. Chapter 5 General Building Heights and Areas
 - a. Section 505 Mezzanines
 - i. 505.3 Egress. Each occupant of a mezzanine shall have access to at least two independent means of egress where the common path of egress travel exceeds the limitations of Section 1014.3.
 - ii. 505.4 Openness. Exceptions: 1) Occupant load of the aggregate area of the enclosed space does not exceed 10. 2) one of means of egress is direct exit 3) aggregate floor area is less than 10% of the mezzanine area 4) Occupancies other than H & I & less than 2 stories in height above grade and fully sprinklered and two exits.
4. Chapter 6 Types of Construction
 - a. Table 601 - Building is Type 1B – Non-combustible, structural frame and floor to be 2 hr rated
5. Chapter 9 Fire Protection Systems
 - a. Section 903 Automatic Sprinkler Systems
 - i. 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:
 - The fire area exceeds 12,000 square feet
 - The fire area has an occupant load of 100 or more; or
 - The fire area is located on a floor other than the level of discharge

6. Chapter 10 Means of Egress:

Table 1004.1.1 Maximum Floor Area allowances per occupant	
Function of Space	Floor area in Square Feet per Occupant
Accessory Storage areas, mechanical equipment room	300 gross
Assembly - Concentrated	7 net
Assembly - Unconcentrated	15 net
Business	100 gross
Educational	20 net
Library – Reading rooms	50 net
Library – Stack area	100 gross

Option 3 Occupancy : Dattner Calculations 15.07.09		
	Rooms = sf	occupants
Accessory – Storage/ Mech	Main Floor: 769	769/300 = 2.5
	Second Floor: 114	114/300 = .38
	Basement: 1,801 sf	1801/300=6
Assembly (concentrated)	Scott Room = 1,875 sf	1,875/7 = 268
Assembly (unconcentrated)	Meeting Room 3 & 4 = 986 sf	986/15 = 66
	Café = 418 sf	418/15 = 28
Business	Group Study Rooms = 635 sf	20
	Second Floor: 971	971/100 = 9.7
	Basement: 2682	2682/100=27
Educational- Classroom	Children's Program Room: 639 sf	639/20 = 32
	Library - Reading	Children's Reading: 592 sf
	Main Reading: 3172	3172/50=63
	YA Reading: 348	348/50 = 7
Library - Stacks	Children's Stacks: 2712 sf	2712/100 = 27
	Main Stacks: 8459	8459/100 = 85
	YA Stacks: 301	301/100 = 3
	Local History: 456	456/100=4.5
Total Occupants		661

- a. Section 1014.3 Common path of egress travel: < Max. 75'-0". Occupancy B 100'-0" feet sprinklered building
- b. Section 1015.1 Exit or exit access doorways required.
 - i. Table 1015.1 Occupancy A & B – Spaces with a Max. occupant load of 49 will have one exit.
 - ii.

Floor	Occupancy	Common Path of Travel	No. of Required Exits
Basement			
First Floor			
Second Floor	Board Room = 24 + Office = 12 =36 < 49 people	54'	1

- c. Section 1016 EXIT ACCESS TRAVEL DISTANCE = 200'-0" unsprinklered, 250'-0" sprinklered

7. Chapter 29 Plumbing Systems:

Table 2902.1 Min. Number of Required Plumbing Fixtures: 15.07.09						
Occupancy	WC Male	WC Female	Lav Male	Lav Female	D.F.	Other
A-3	1 per 125	1 per 65	1 per 200	1 per 200	1 per 500	1
Assembly total = 362/2 = 181	1.4	2.8	.9	.9	.3	
Library Assembly = 201.5/2 = 101	.80	1.55	.50	.50	.2015	
B	1 per 25	1 per 25	1 per 40	1 per 40	1 per 100	
Business Total = 52.3 people/2 = 28.35	1.13	1.13	.71	.71	.28	
E	1 per 50	1 per 50	1 per 50	1 per 50	1 per 100	
Educational total = 32/2 = 16	.32	.32	.32	.32	.16	
S	1 per 100	1 per 100	1 per 100	1 per 100	1 per 1,000	
Accessory Total = 8.8/2=4.4	.04	.04	.04	.04	.004	
Total Fixtures =	3.69=4	5.84=6	2.47=3	2.47=3	.94=1	1

Zoning Analysis

Site

The site is approximately 10.77 acres, and is located at the southwest corner of the intersection of Olmsted Road and White Plains Road (Route 22). The south and west sides of the site are occupied by Harwood Park. On the west there is a wetland area regulated by the Village of Scarsdale. The existing building and the proposed addition are within the 100' wetlands setback. The proposed outdoor deck falls within the 25'-0" wetlands setback.

FEMA's Flood Insurance Rate Map indicates that the majority of the site is Zone X, the area including the wetland/ watercourse is Zone AE at Elevation 191'-0".

Building Expansion

The building additions are designed to minimize environmental impact. Ground paving shall be of pervious materials where practicable. The building additions are designed with vegetated green roofs to responsibly address storm water. The existing rain gardens are being replaced when impacted by the new building additions. The additions are designed as low one story structures, and have minimal impact on views from the surrounding properties. The additions comply with the Zoning Law of the Village of Scarsdale maximum building height, yard setbacks and parking space number requirements. Zoning compliance, including parking shall be subject to review and approval by the Village Zoning Board.

Parking

The Zoning Law of the Village of Scarsdale regulates parking in a library based on the number of seats in the main place of assembly. In discussion with the Village Planner, it was further clarified that the main place of assembly is interpreted as the Scott Room. The Scott Room occupancy, based on concentrated assembly function is 268 seats. Per Scarsdale Zoning Law, providing 1 parking space for every 4 seats would be 67 parking spaces. The existing number of spaces is 107, so the existing condition exceeds the required. Parking is not in the scope of the project. If additional parking should be added to the scope, there are a few locations that could be studied for feasibility. One option is a parking area along the west end of the existing parking lot as proposed in the Gibbons, Heidmann & Salvador drawing set dated August 30, 1973. An alternate potential location would be expanding parking in the south part of Harcourt Park.

State Environmental Quality Review

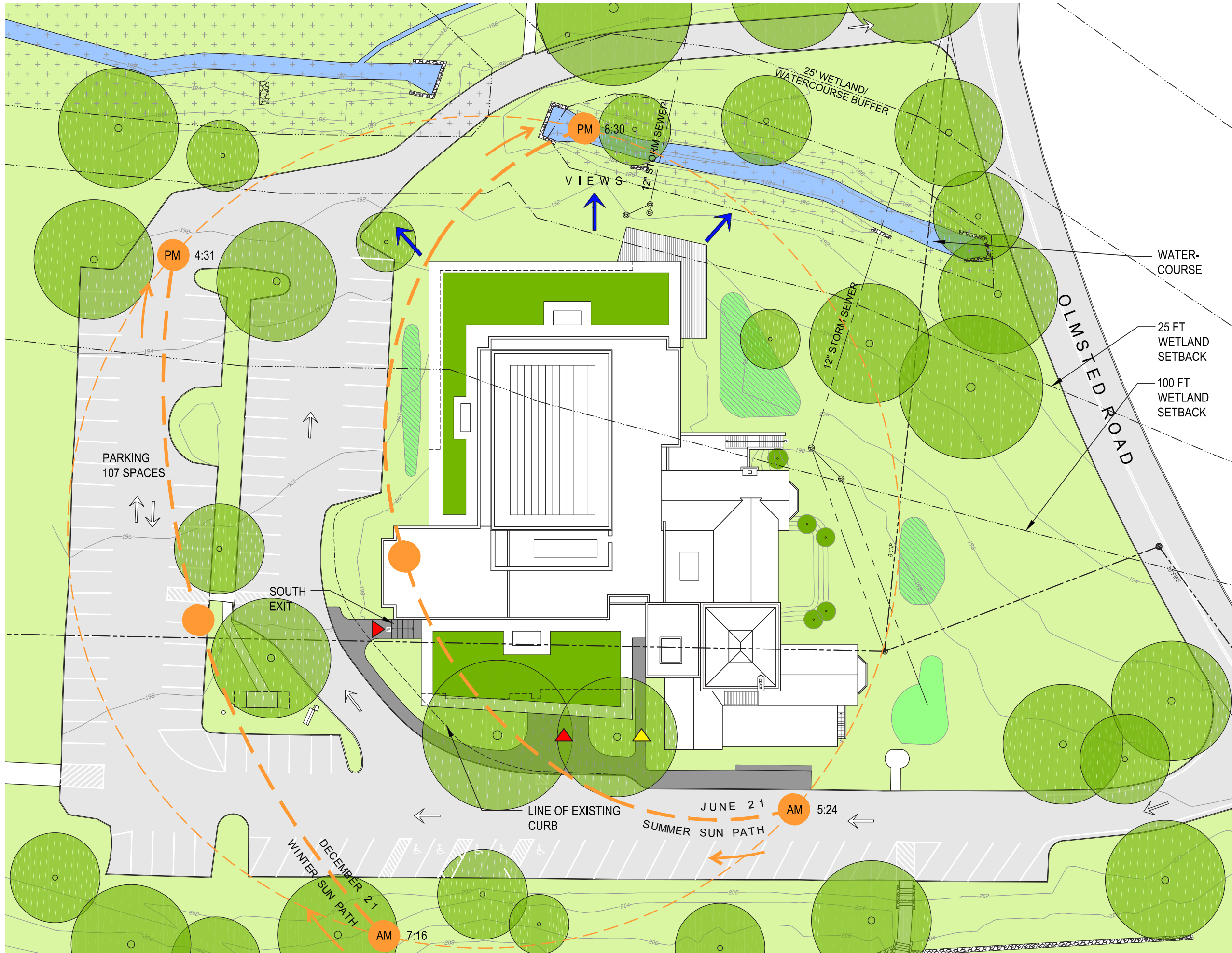
As part of the Site Plan Approval the project will be subject to SEQR. It will require a Full Environmental Assessment Form (EAF). It is assumed that no further impact statements or assessments shall be required. Environmental impact shall be assessed as required by NYS regulations once a design option and scope of work has been defined.

Zoning Analysis				
Site Data				
Address:	54 Olmsted Road, Scarsdale, New York 10583			
Zoning District	Residence A-3			
Tax Map Parcel ID	04.04.930A			
FEMA Firm Map	36119C0331F, Majority Zone X, area including wetland/watercourse Zone AE, base flood elevation of 191			
Zoning Section	Item	Required/Permitted	Proposed	Complies
310-25A	Maximum height of building	35'-0"	East Addition 15'-11"	Complies
			Stair Core 25'-11"	
			West Addition 13'-4"	
251-2A.2	Maximum percentage of the gross area of the lot occupied by buildings and improvements	As prescribed by the Planning Board. (Pursuant to Ch. 251, Site Plan Review of the Village Code)	Approx. 26,102 sf building footprint + paving (TBD by survey)	Site Plan Review
			207'-8" / 189'-3"	Site Plan Review
251-2A.3	Maximum length and width of all such buildings			
310-35 & 40	Front yard setback	30' / 40'-0" (on state or county highway)	95'-9 1/4"	Complies
310-43A1	Rear yard setback	30'-0"	365'-4"	Complies
310-51	Side yard setback	10'-0"	535'-11"	Complies
310-53D	Side yard corner lot setback	20'-0"	106'-6"	Complies
310-70A.3	Number of parking spaces	67 spaces (1 space for every 4 seats, 268 seats)	107 Existing	Complies

Information contained in this analysis was taken from the Code of the Village of Scarsdale, Chapter 310 entitled "Zoning Law of the Village of Scarsdale." Compliance is confirmed from the existing 1945 and 1973 architectural drawings, WCGIS mapping and the June 2015 site survey performed by Thomas C. Merritts Land Surveyors, P.C.

II. Architectural Design Options

Option A + Option B



- Relocated Rain Garden
- Existing Rain Garden
- Green Roof
- Village of Scarsdale Wetland Area
- Vehicles
- Views
- Service Entrance
- Public Entrance

WATER-COURSE

25 FT WETLAND SETBACK

100 FT WETLAND SETBACK

OLMSTED ROAD

VIEWS

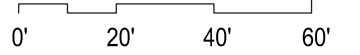
PARKING 107 SPACES

SOUTH EXIT

LINE OF EXISTING CURB

JUNE 21
SUMMER SUN PATH

DECEMBER 21
WINTER SUN PATH





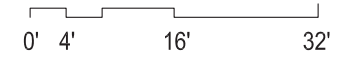
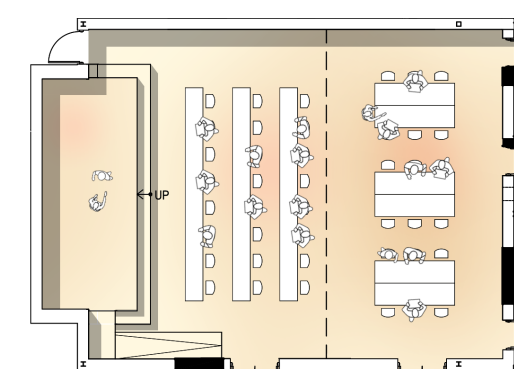
SOLAR SHADING
LINE OF ROOF ABOVE

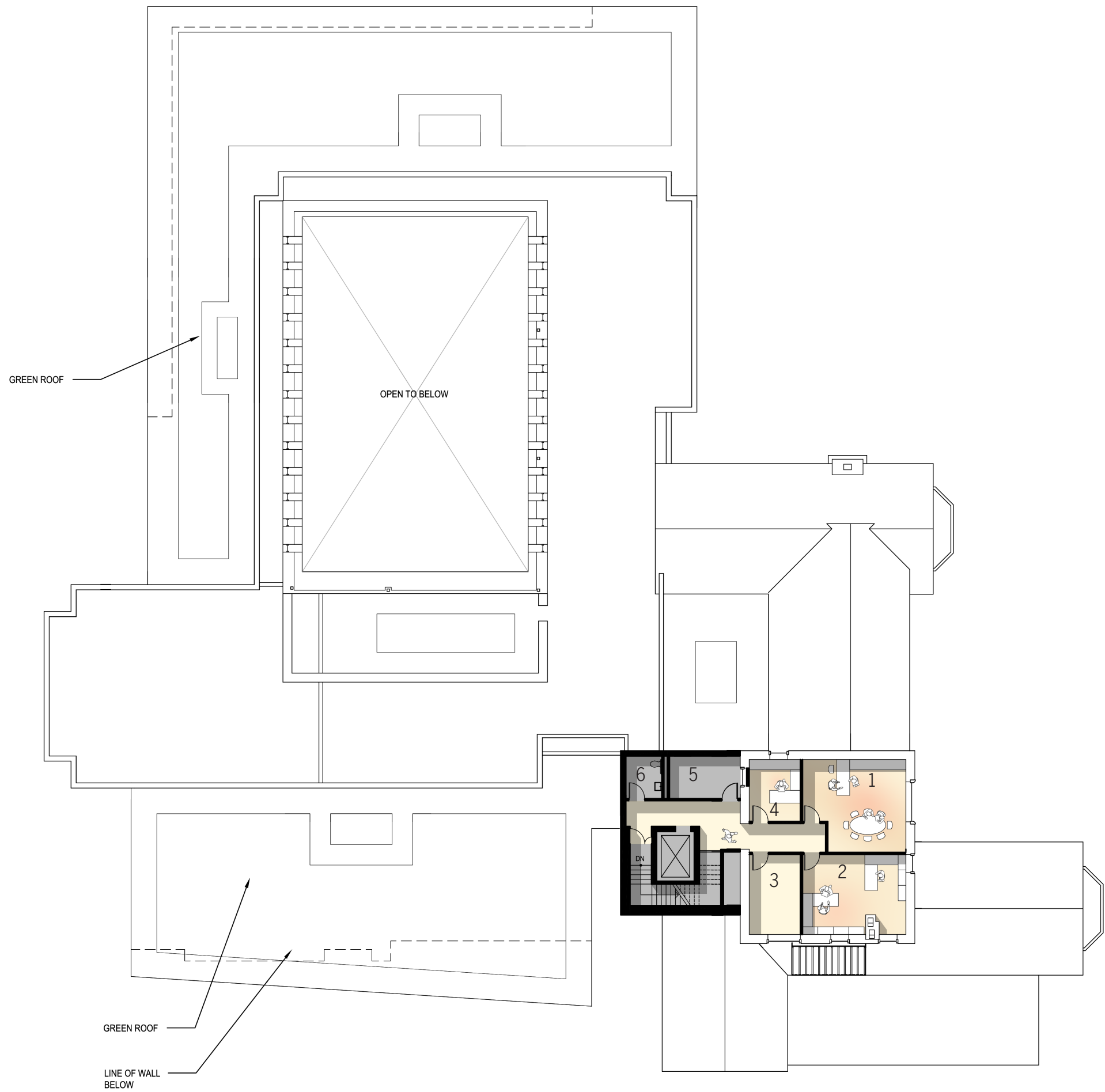
OPTION A - Main Level

1. Entry Vestibule
2. Cafe
3. Adult Browsing
4. Meeting Room
5. Scott Room
6. Group Study Room
7. Technology Suite
8. Main Collection Area
9. Reference Area
10. Reading Gallery
11. Quiet Reading Area
12. Young Adult
13. Children's Area
14. Children's Program Room
15. Storage
16. Kitchenette
17. Toilet
18. Home Office / Makers Room/Meeting Space
19. Outdoor Reading Deck

 New Walls
 Existing Walls

Alternate Scott Room Layout

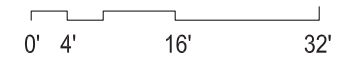


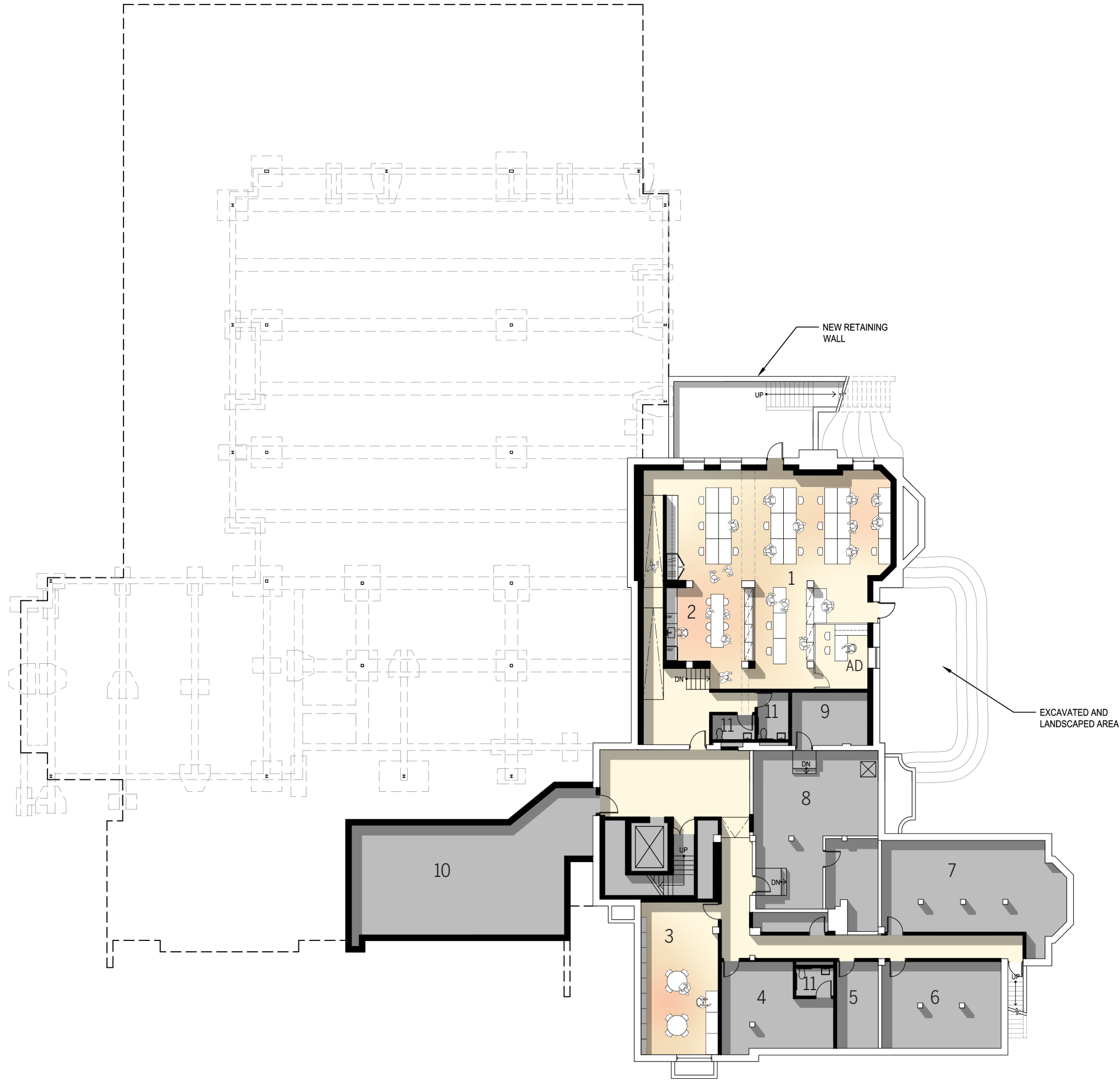


OPTION A - Upper Level

- 1. Library Director's Office
- 2. Business Office
- 3. Office
- 4. Executive Assistant's Office
- 5. Storage
- 6. Toilet

-  New Walls
-  Existing Walls

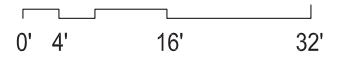


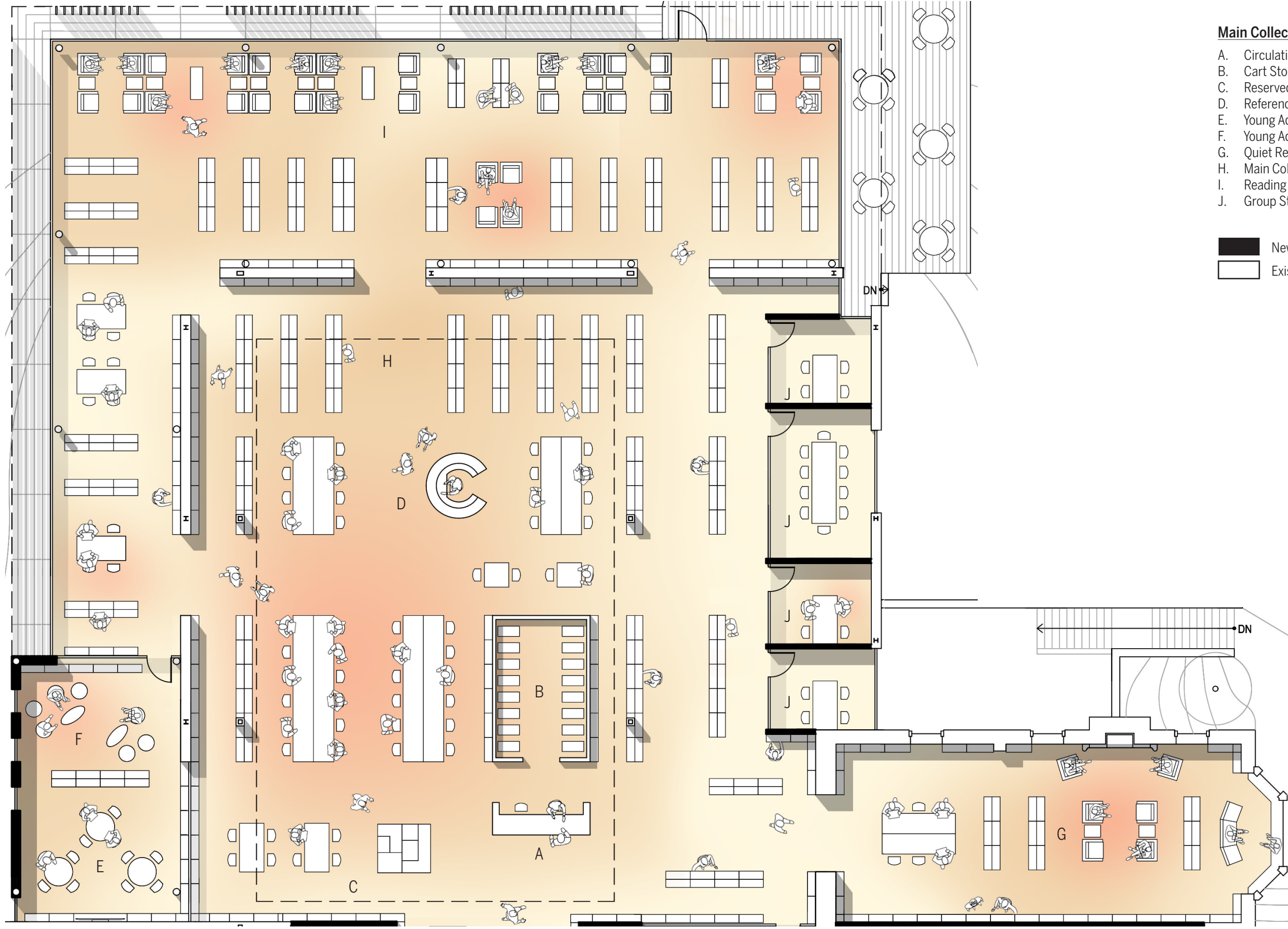


OPTION A - Lower Level

- 1. Staff Work Area
- 2. Kitchenette
- 3. Local History
- 4. Custodian's Office
- 5. Magazine Storage
- 6. Supply Storage
- 7. Book Fair
- 8. Mechanical Room
- 9. Storage
- 10. Book Sort Room
- 11. Toilet

New Walls
 Existing Walls

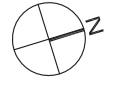
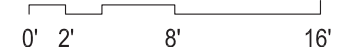


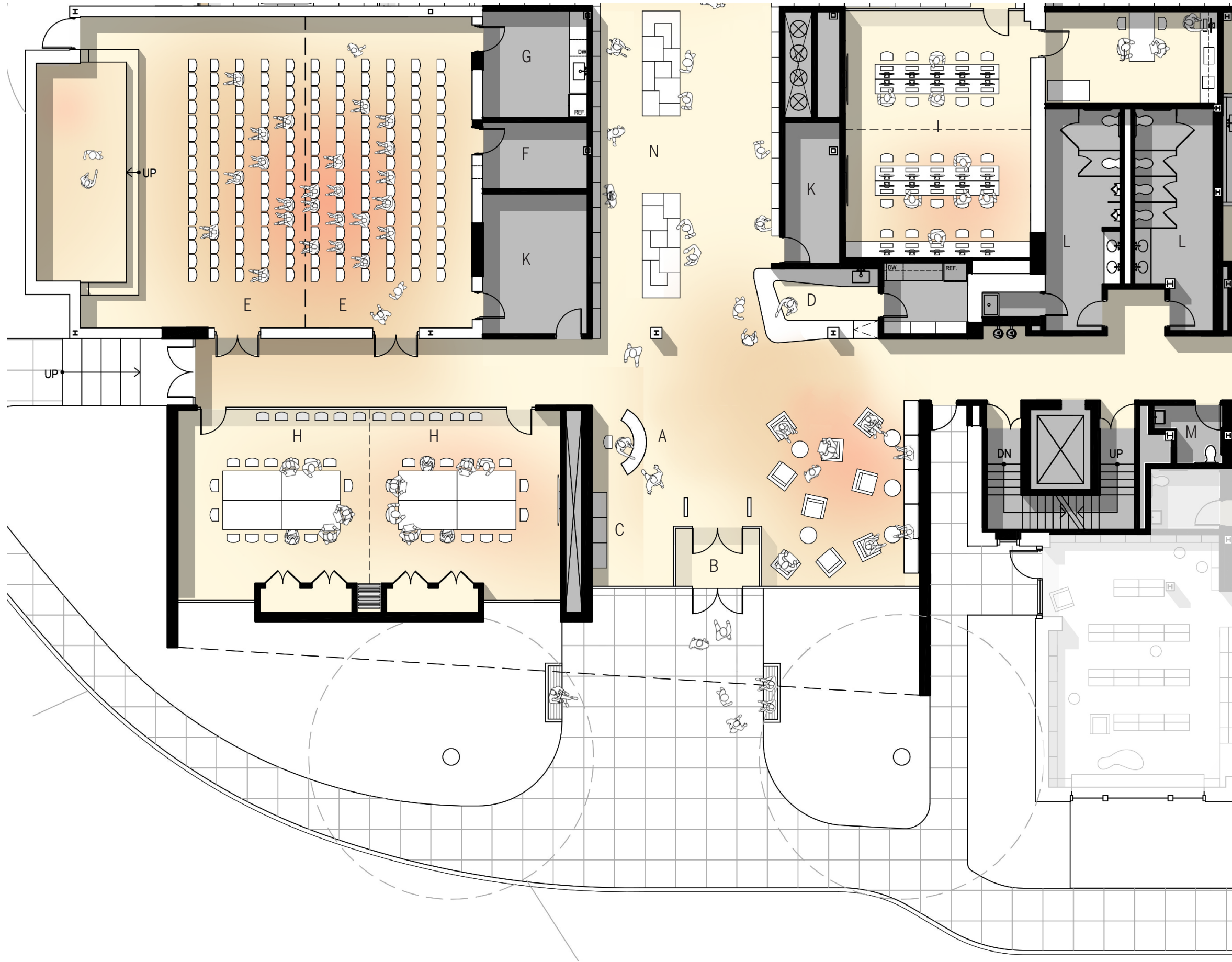


Main Collection + Reading Gallery

- A. Circulation Desk
- B. Cart Storage/Sorting
- C. Reserved Books
- D. Reference Desk
- E. Young Adult Group Study
- F. Young Adult Lounge
- G. Quiet Reading
- H. Main Collection
- I. Reading Gallery
- J. Group Study Room

- New Walls
- Existing Walls

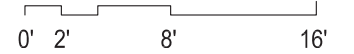


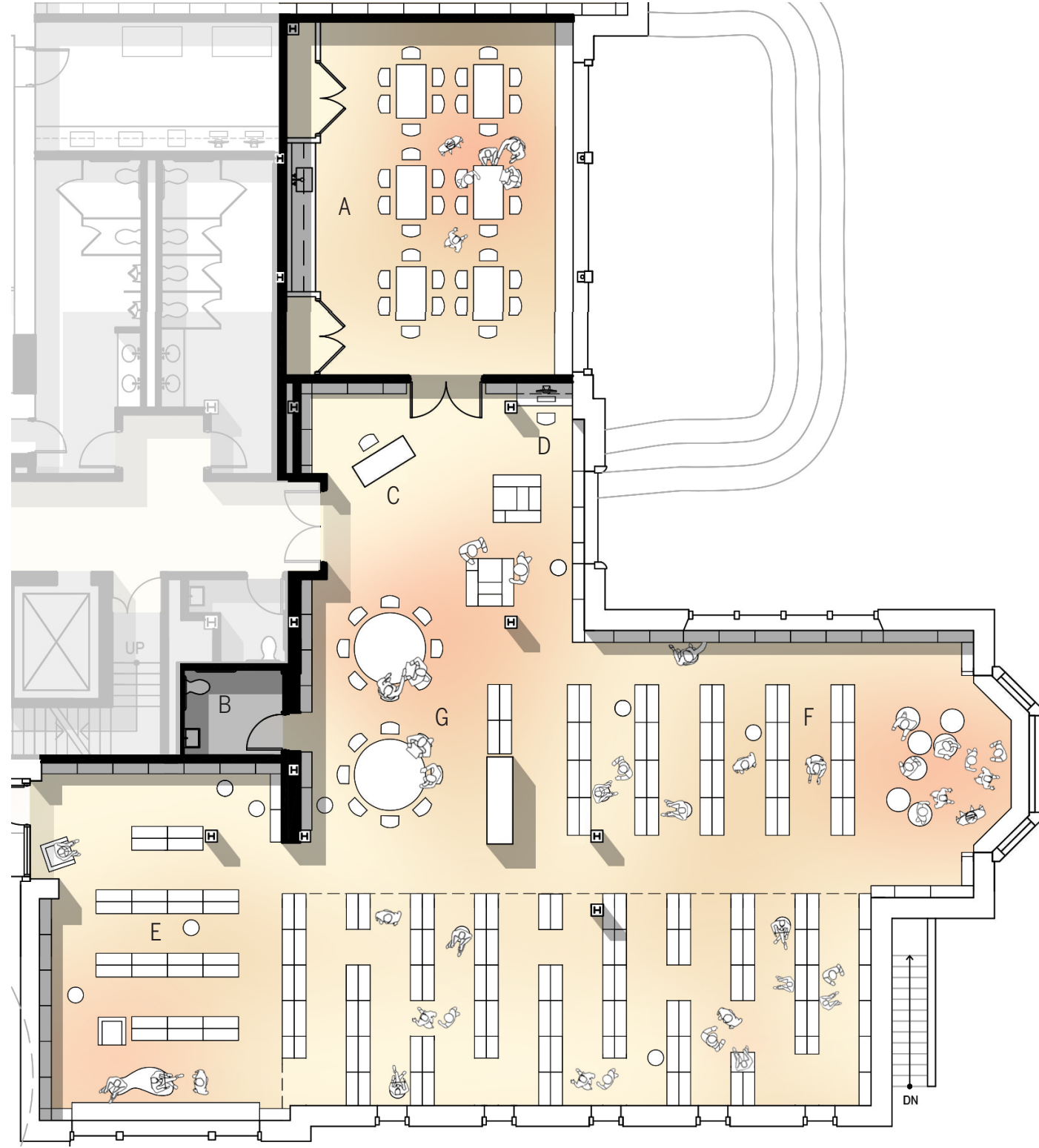


Meeting Spaces/Entry

- A. Information Desk
- B. Entrance Vestibule
- C. Book Drop
- D. Cafe
- E. Scott Room
- F. AV Storage
- G. Kitchenette
- H. Meeting Room
- I. Tech. Instructional
- J. Tech. Home Office / Makers Room/ Meeting Space
- K. Storage
- L. Toilet
- M. Family Toilet
- N. Adult Browsing

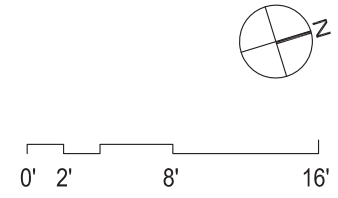
- New Walls
- Existing Walls

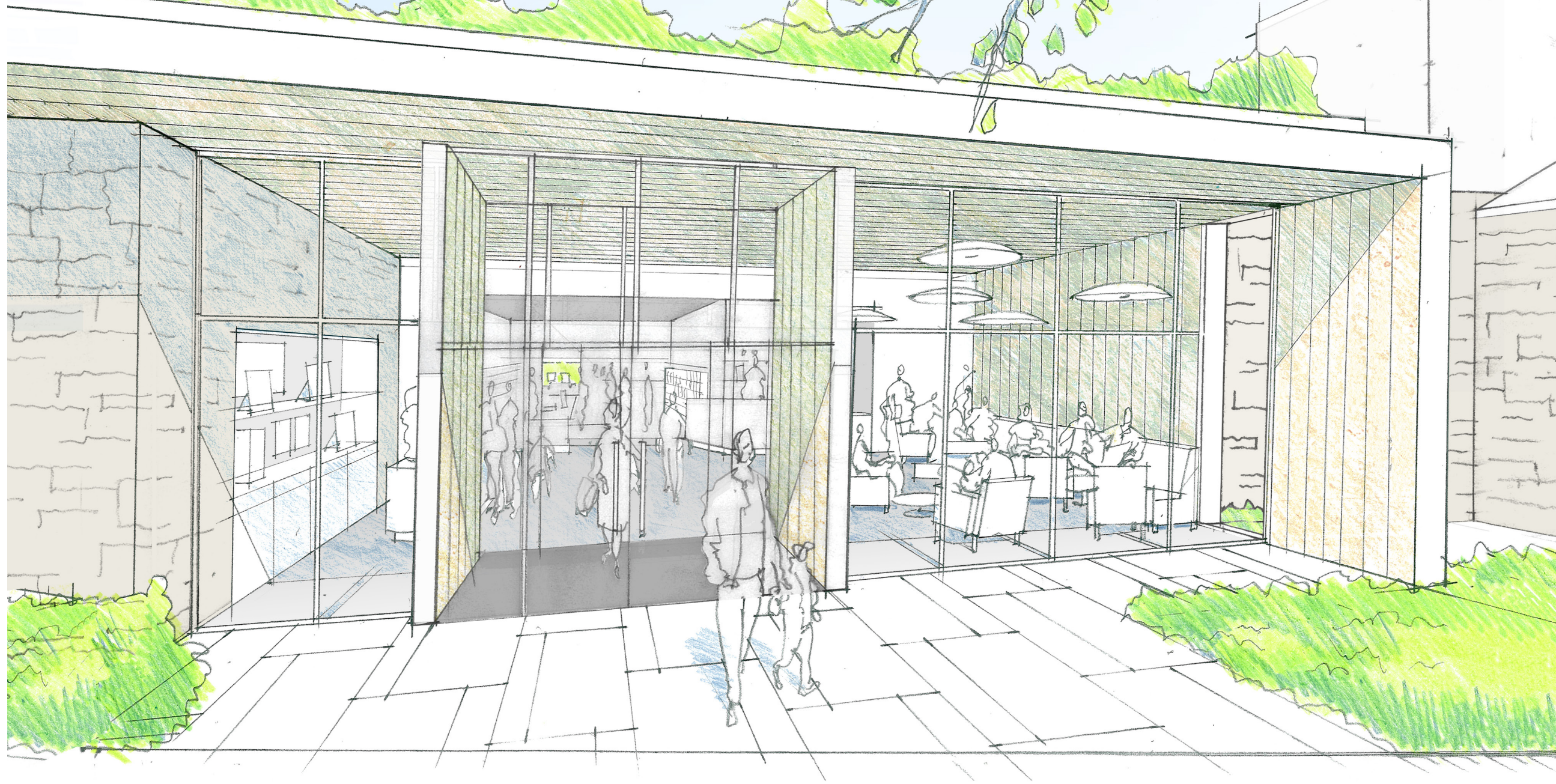
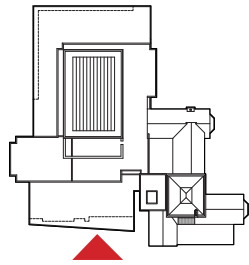


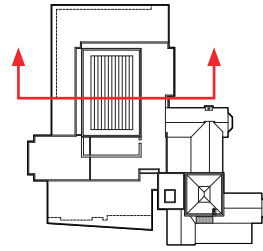
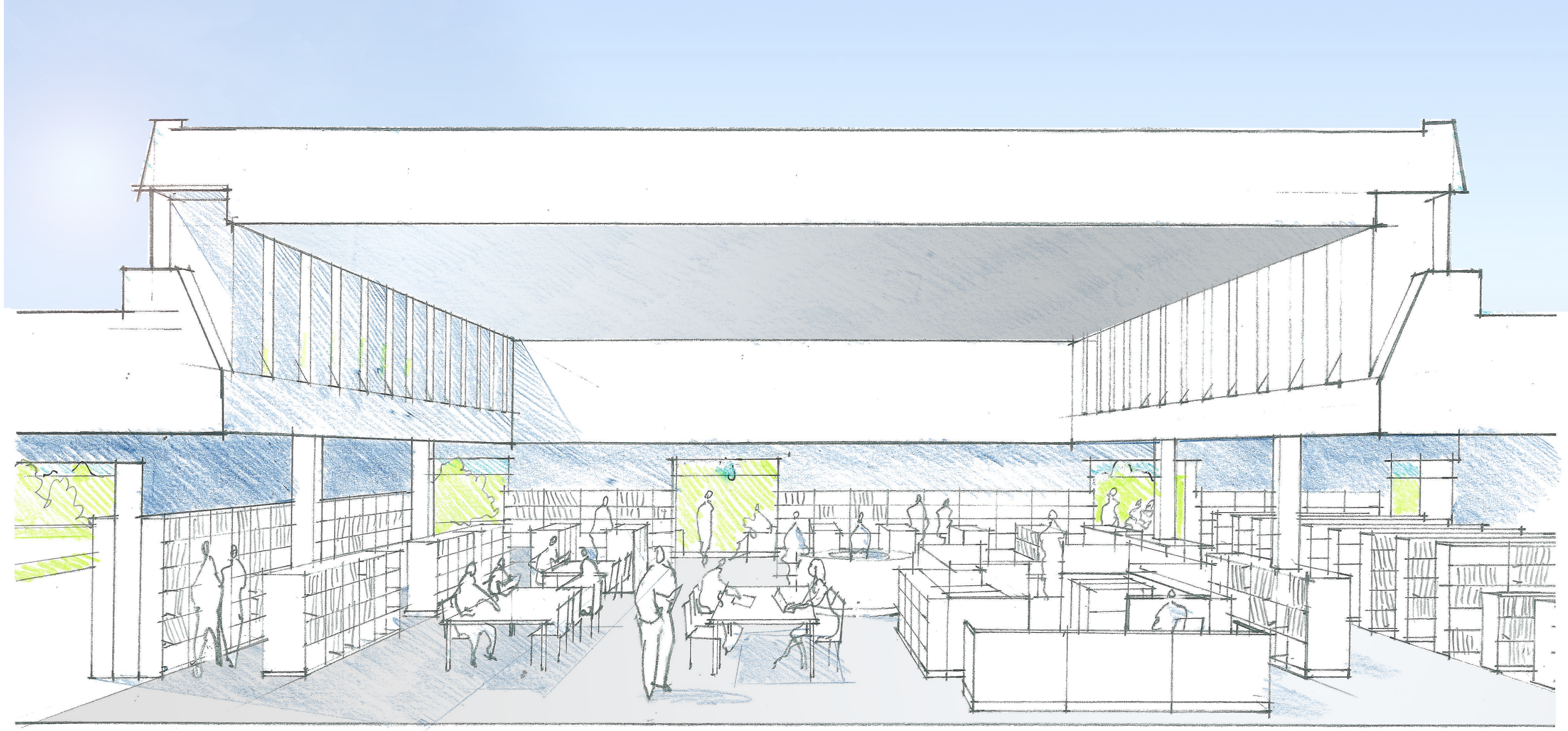


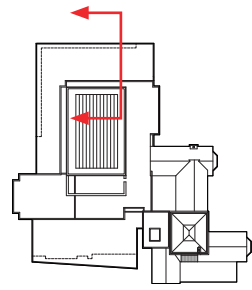
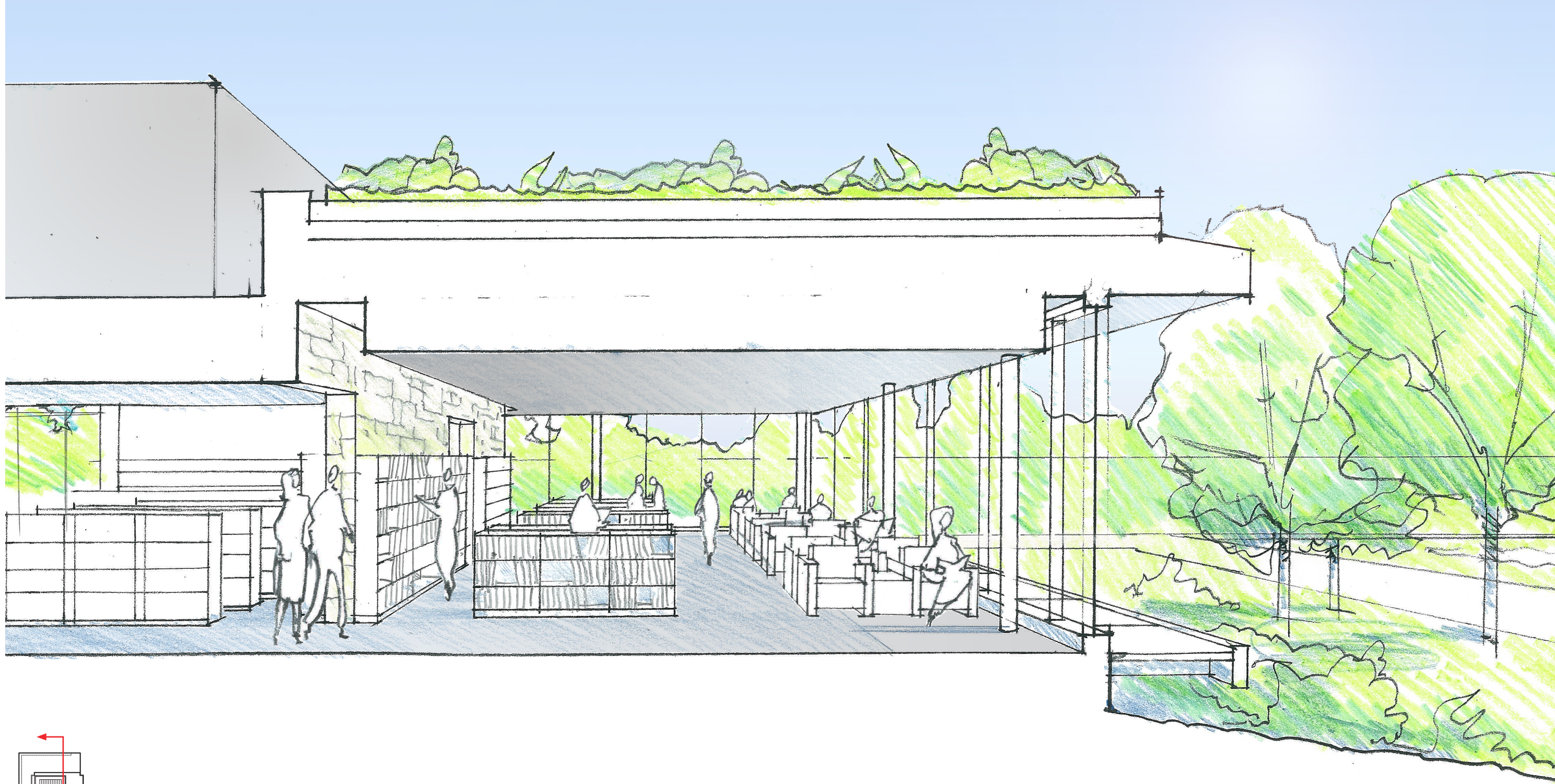
Children's Area + Program Room

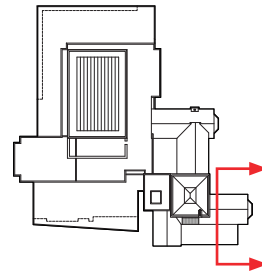
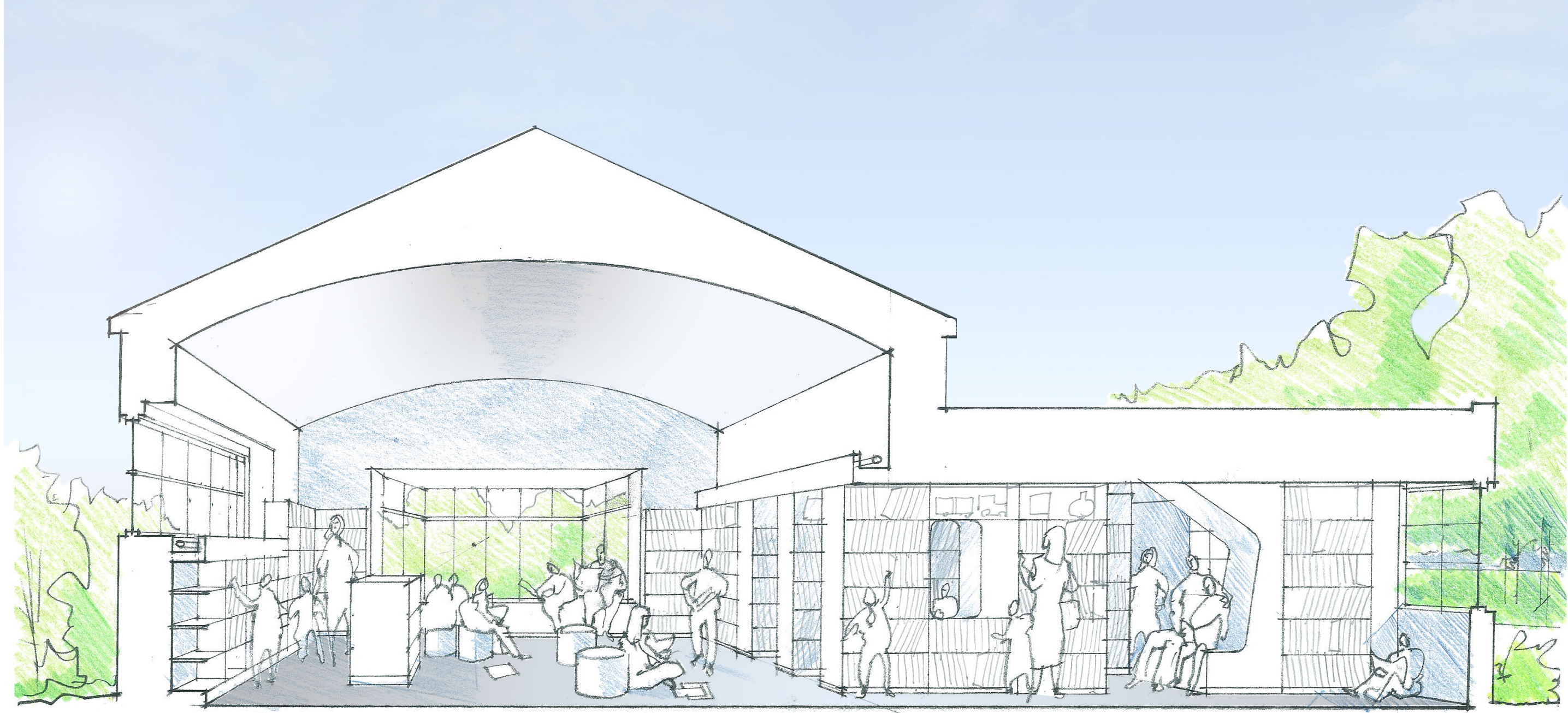
- A. Children Program Room
- B. Family Toilet
- C. Children Reference Desk
- D. Computer Desk
- E. Baby / Toddler Area
- F. Children Area
- G. Group Study

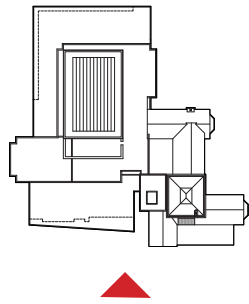




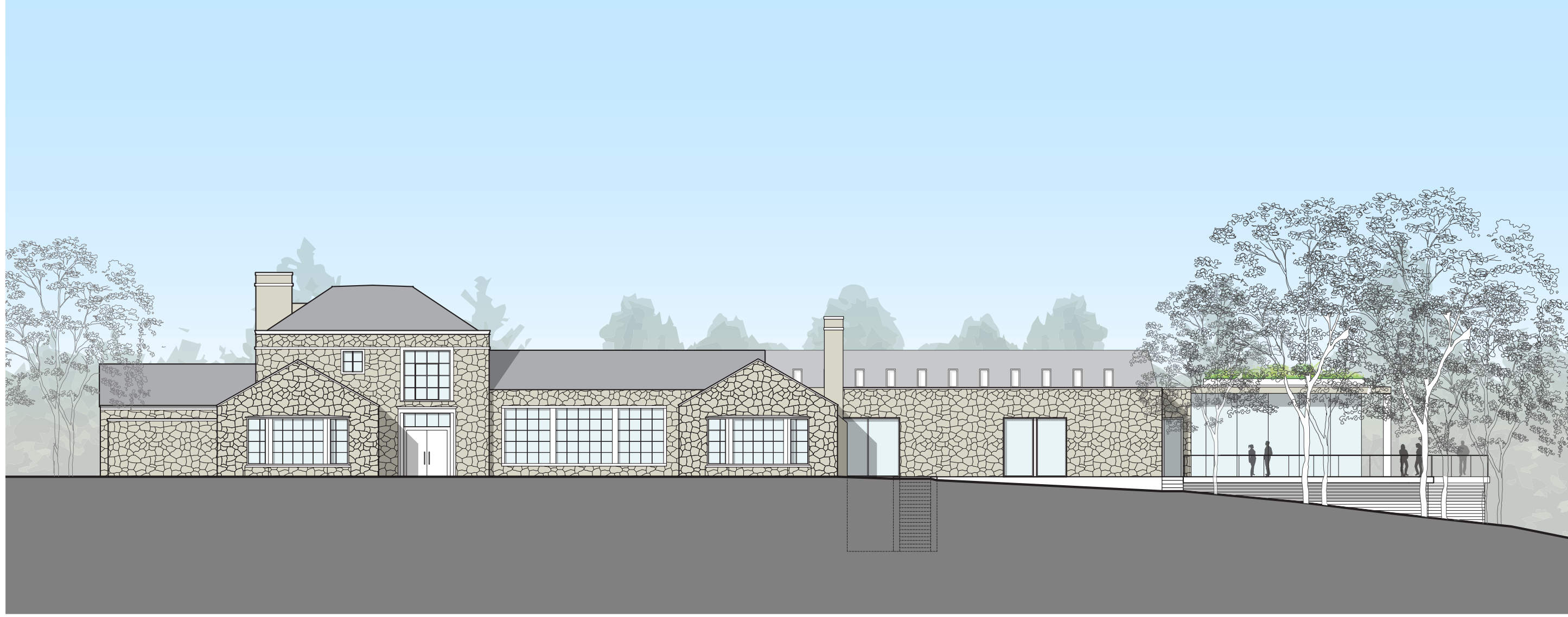
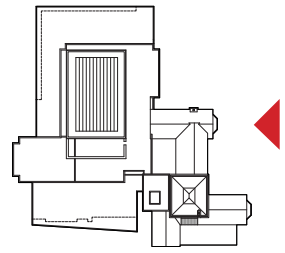


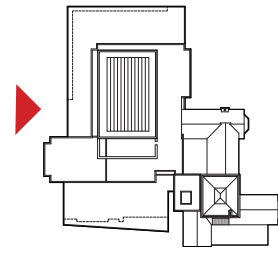


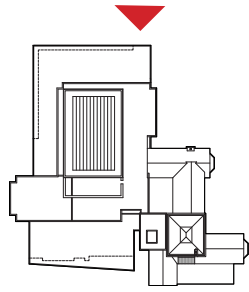


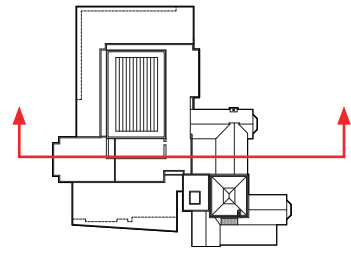


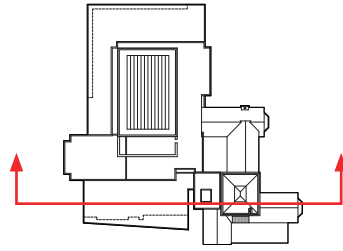


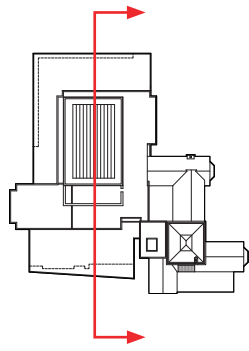


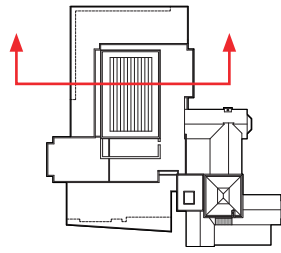
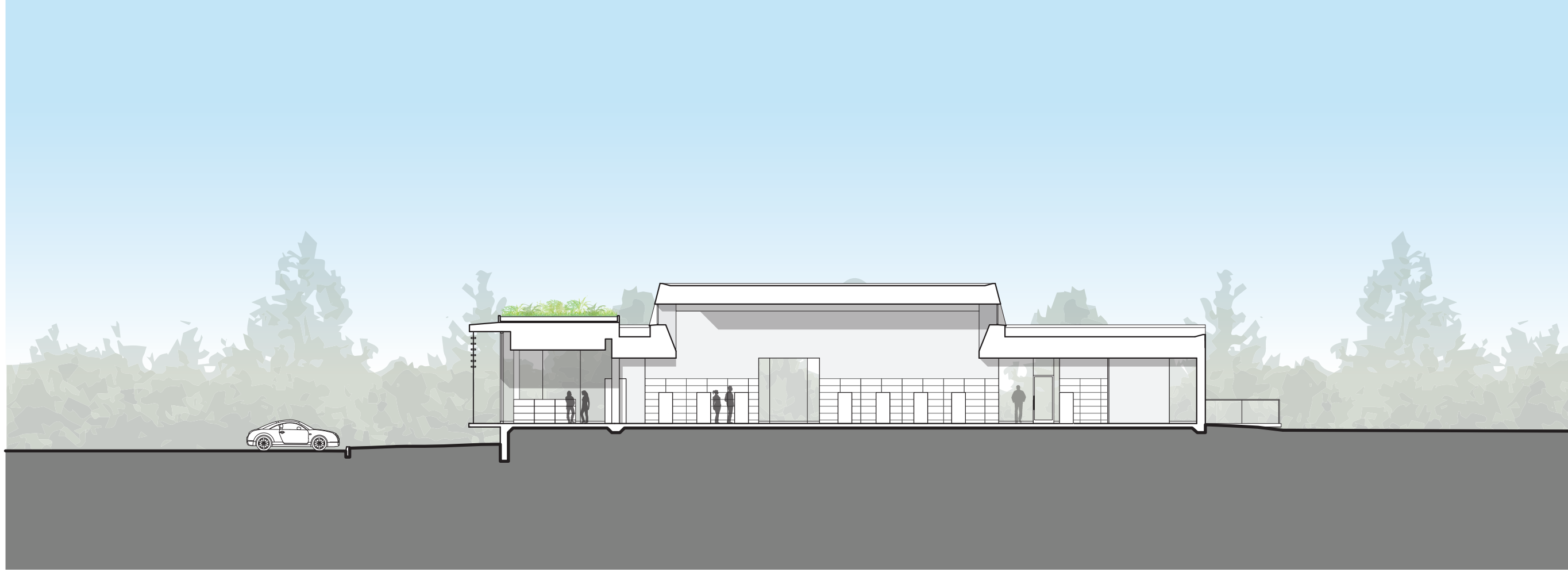


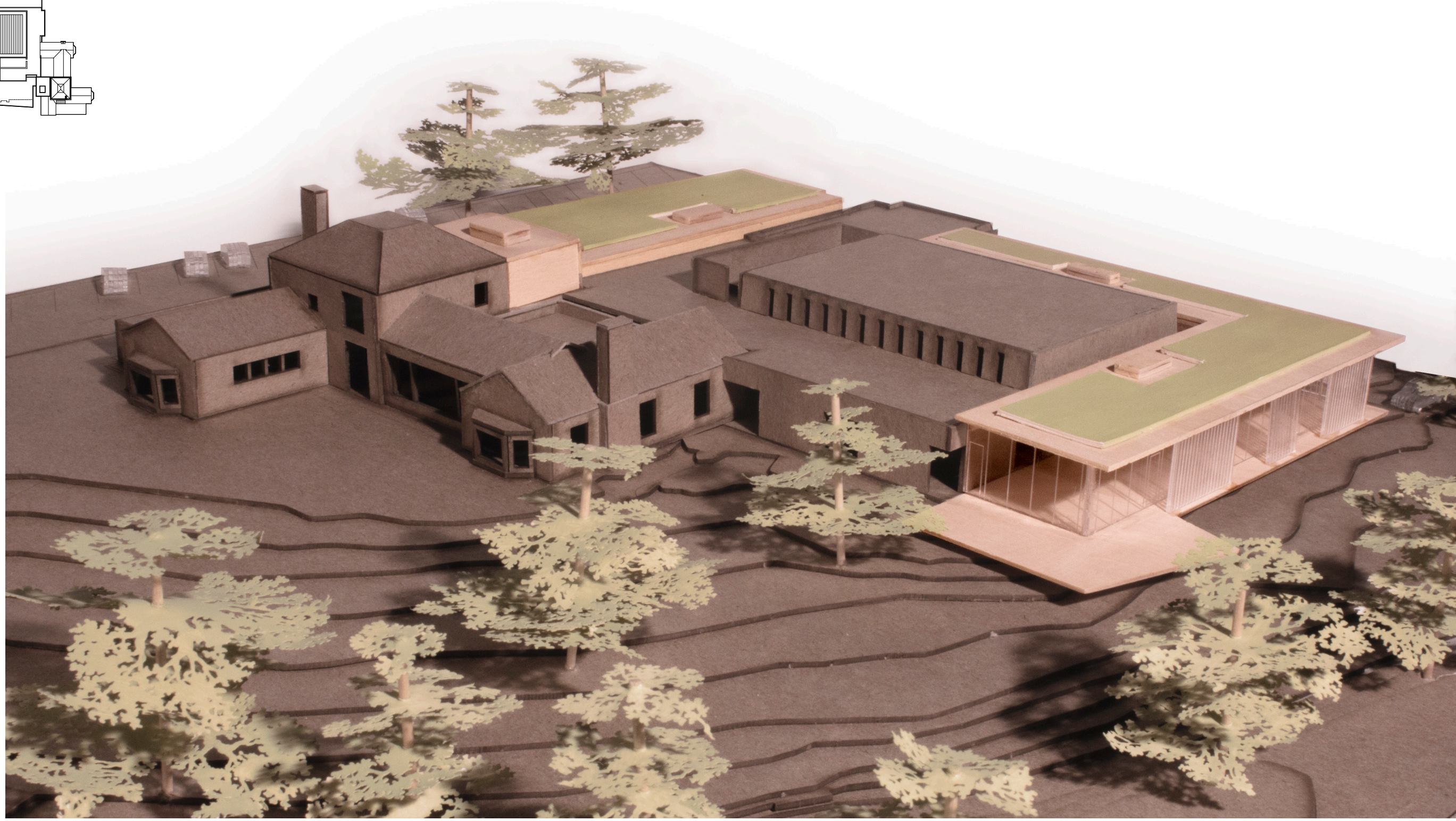
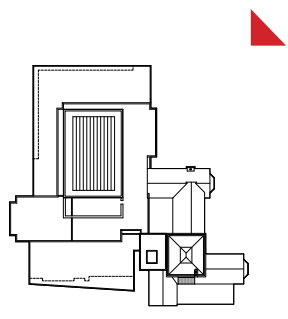


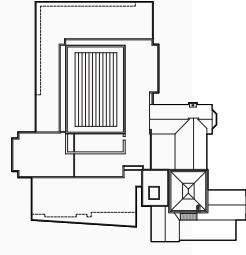
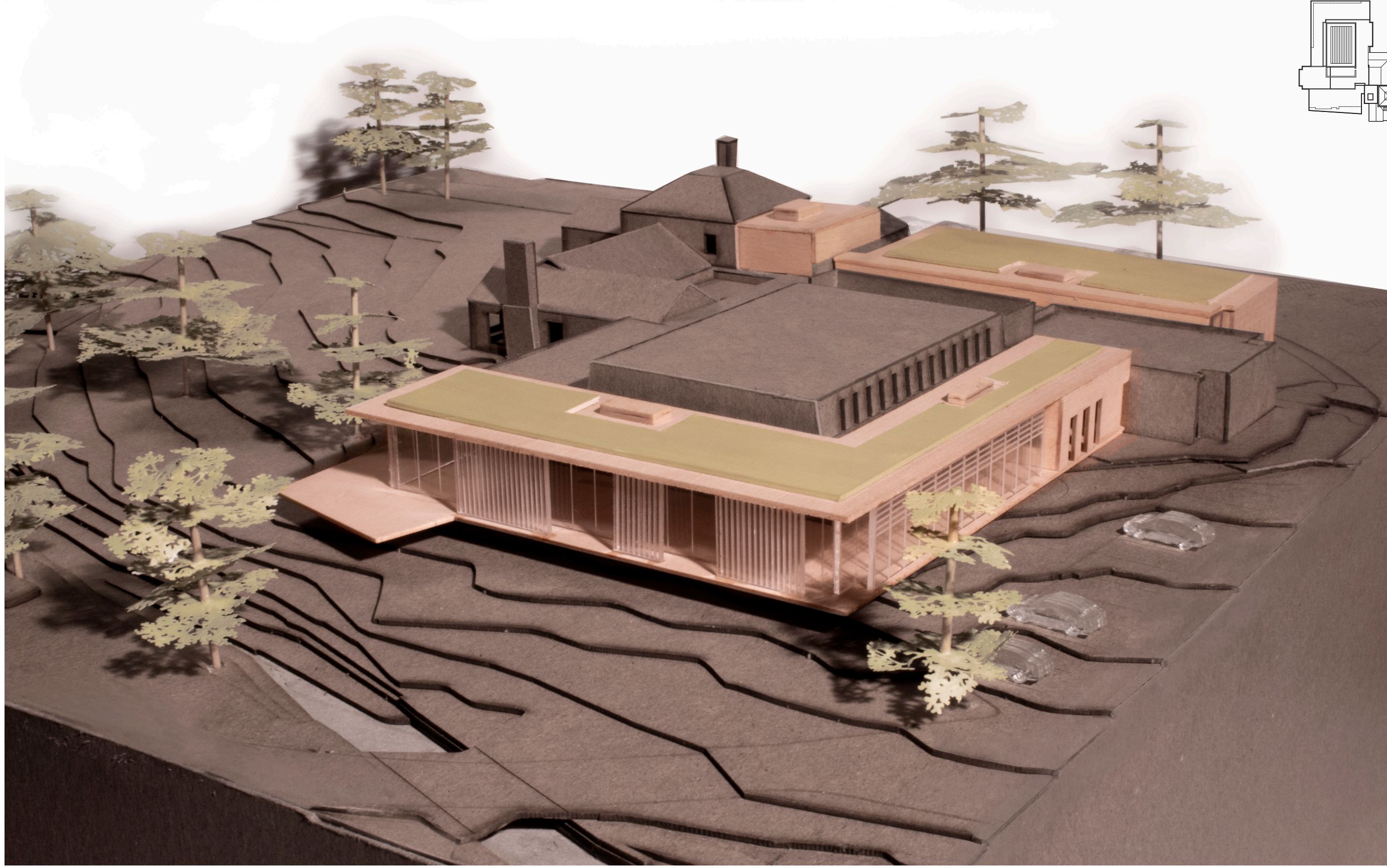


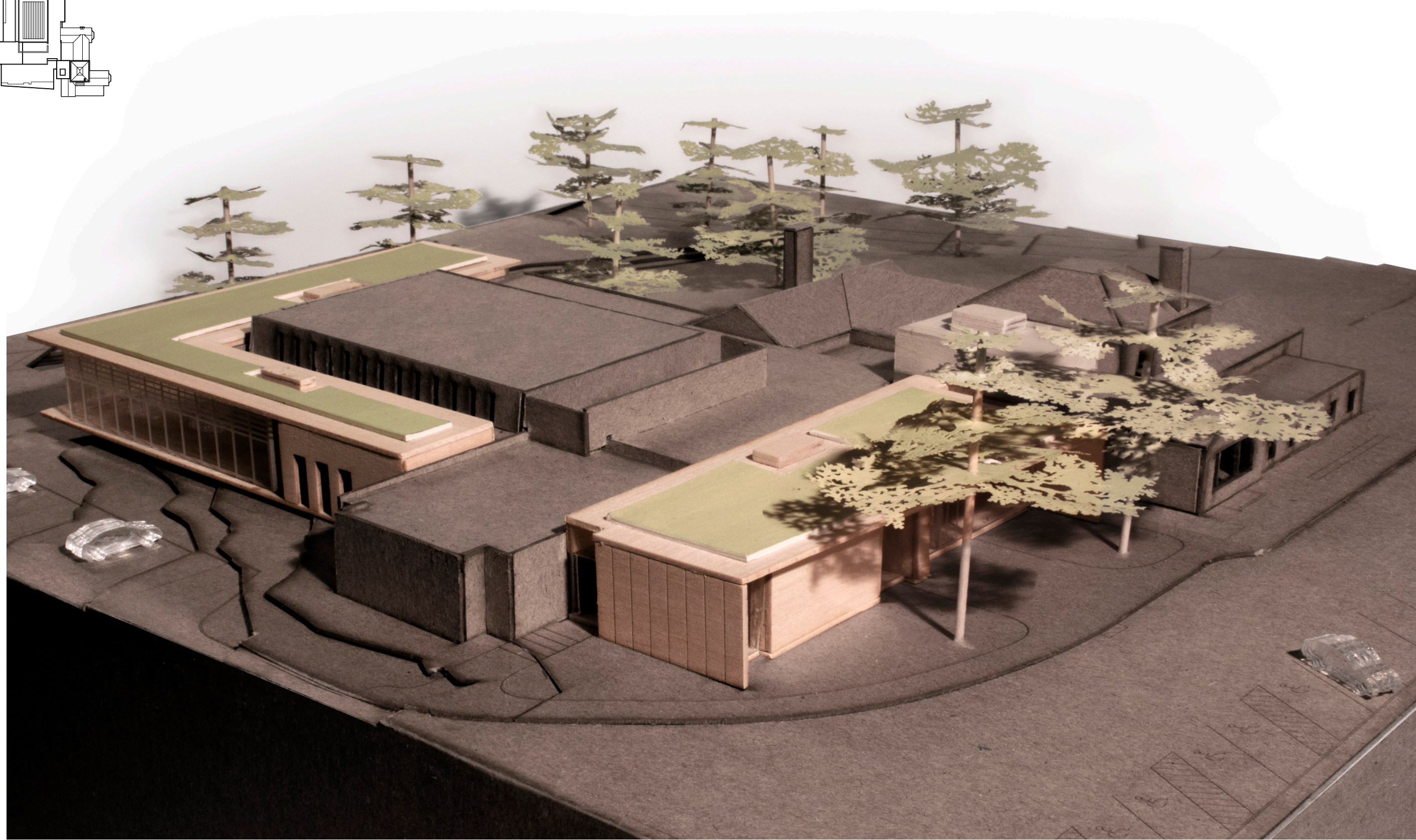
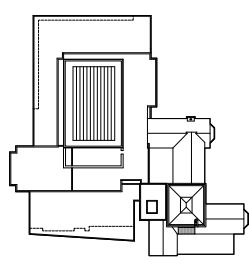


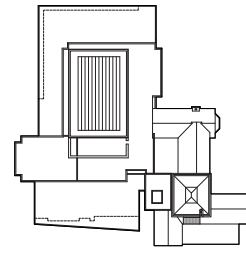
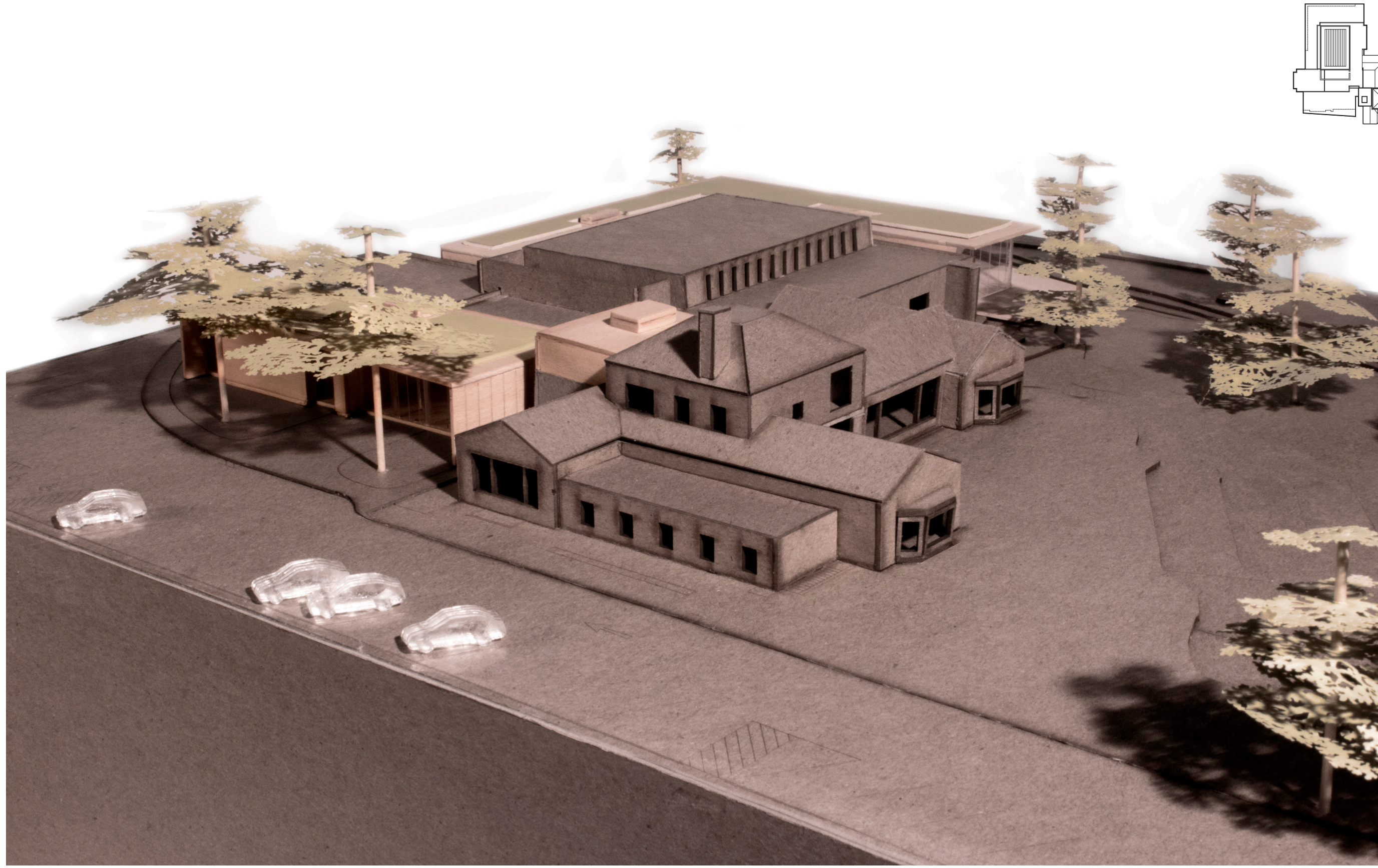


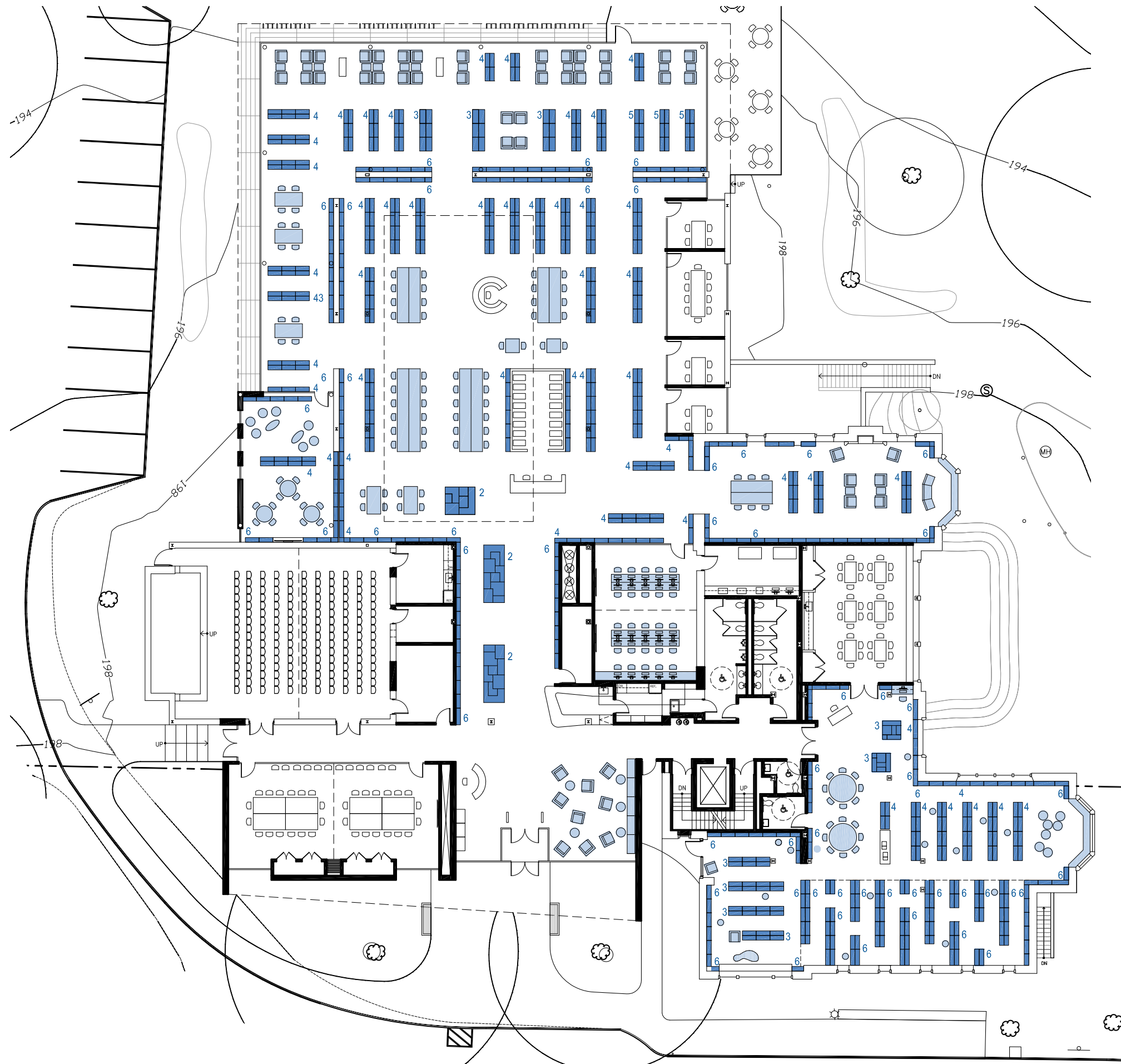












Stacks
 # of shelves
 Seating

Main Collection

Required Stacks = 5,827 LF
 Proposed Stacks = 5,733 LF
 Proposed Seats = 63 seats

Reference

Required Stacks = 188 LF
 Proposed Stacks = 192 LF
 Proposed Seats = 52 seats

Young Adult

Required Stacks = 360 LF
 Proposed Stacks = 366 LF
 Proposed Seats = 19 seats

Children's Area

Required Stacks = 2,986 LF
 Proposed Stacks = 2,929 LF
 Proposed Seats = 46 seats

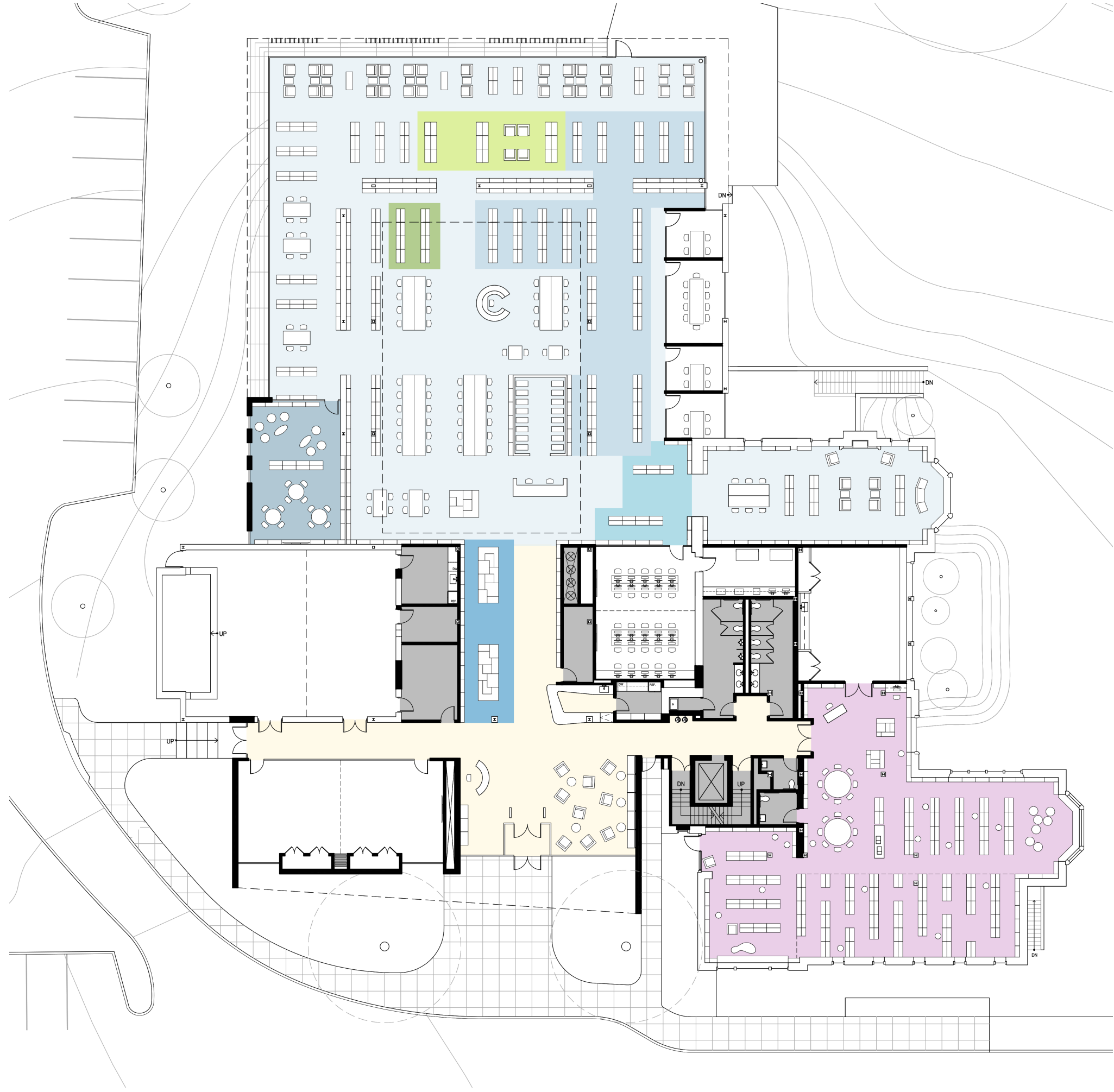
Cafe

Proposed Seats = 14 seats

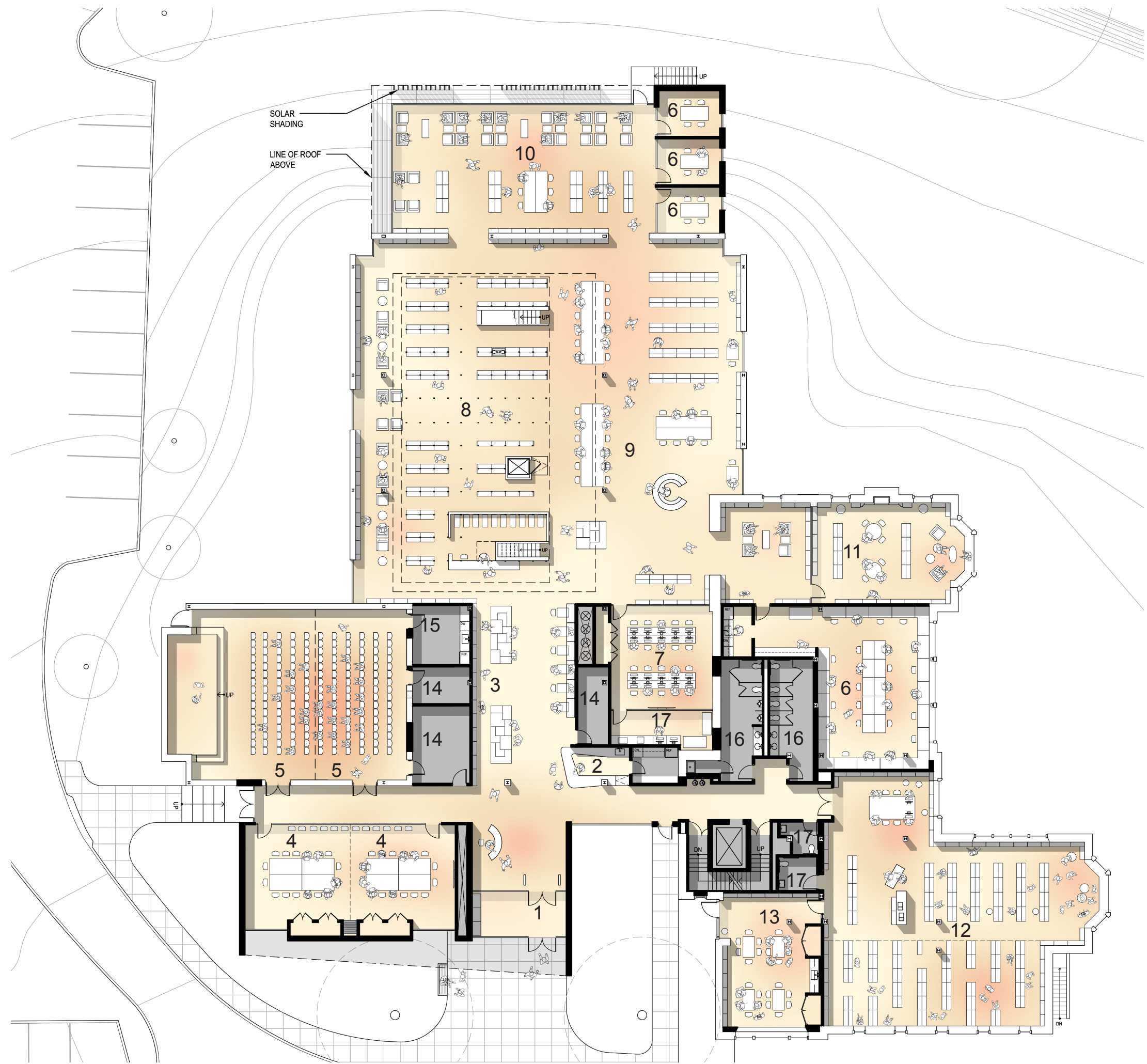
Technology Suite

Proposed Seats = 25 seats

(Note: In Children's Area 6th shelf used for display only)



- Magazines / Newspapers
- Reference
- Adult Non-Fiction
- Adult Fiction
- Adult Non-Book Media
- Adult Browsing
- Young Adult
- Children's Area



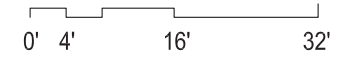
SOLAR SHADING

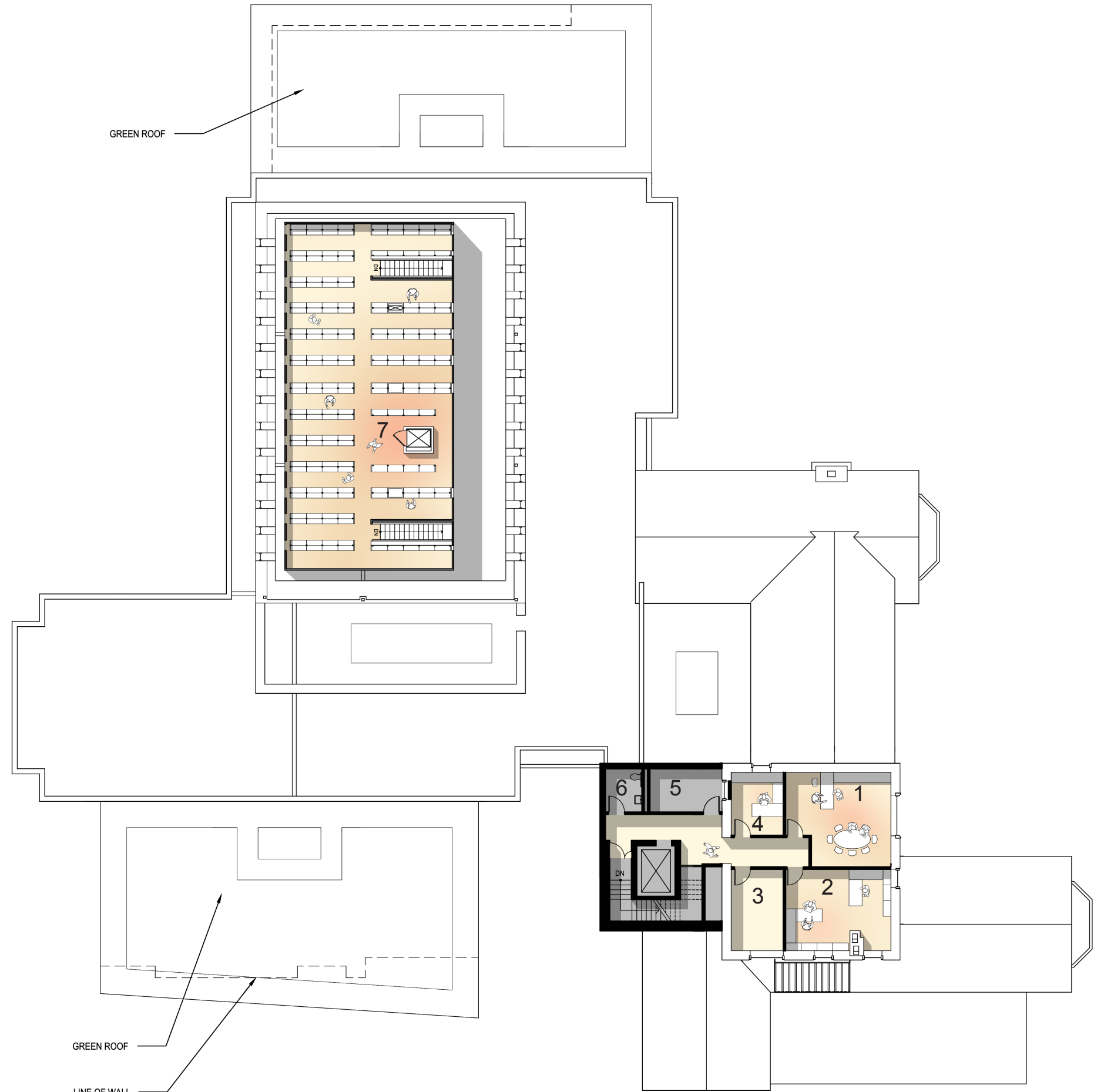
LINE OF ROOF ABOVE

OPTION B - Main Level

- 1. Entry Vestibule
- 2. Cafe
- 3. Adult Browsing
- 4. Meeting Room
- 5. Scott Room
- 6. Staff Workroom
- 7. Technology Suite
- 8. Main Collection Area
- 9. Reference Area
- 10. Reading Gallery / Quiet Reading Area
- 11. Young Adult
- 12. Children Area
- 13. Children Program Room
- 14. Storage
- 15. Kitchenette
- 16. Toilet
- 17. Home Office

New Walls
 Existing Walls





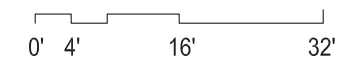
OPTION B - Upper Level

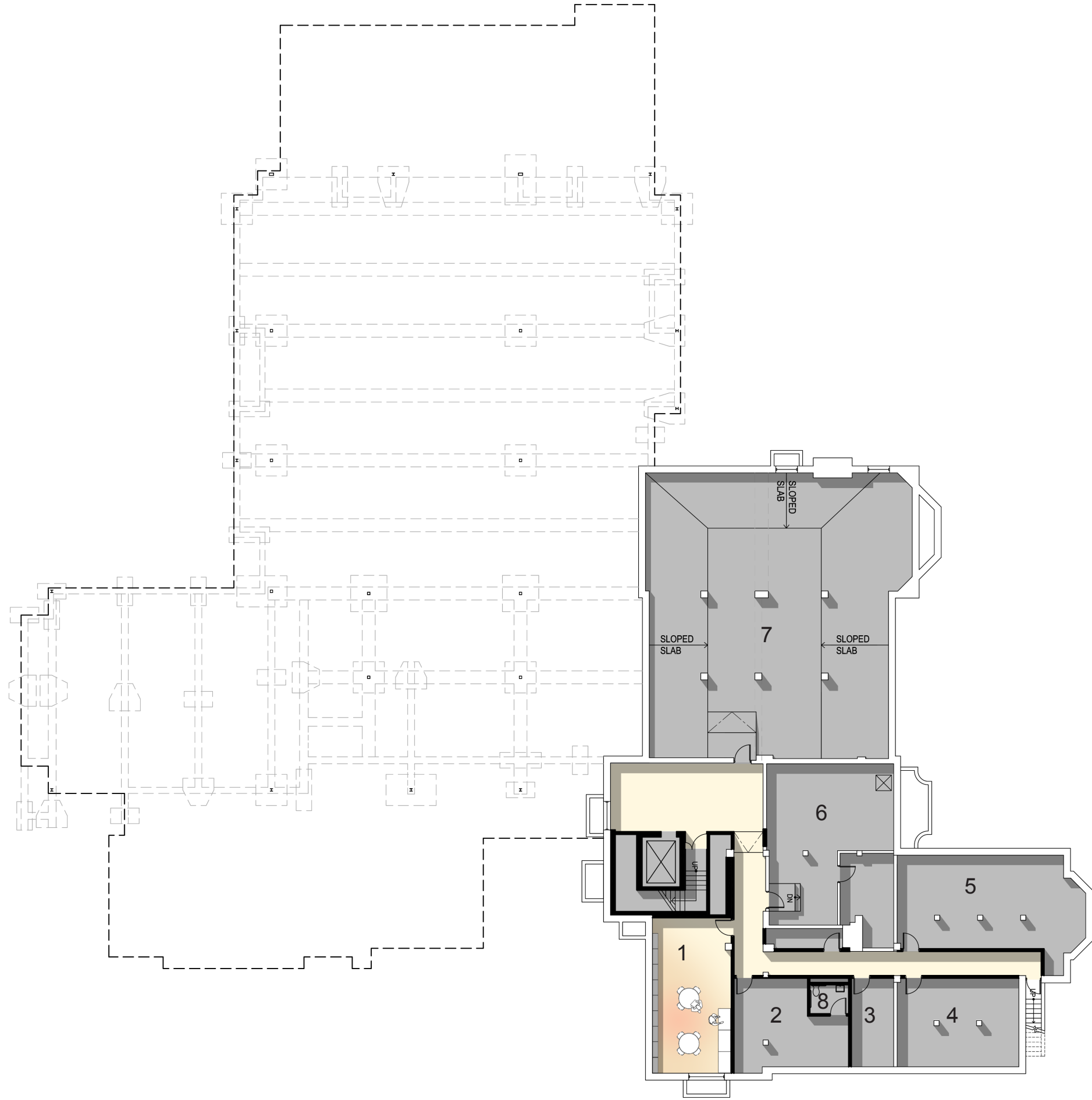
- 1. Library Director's Office
- 2. Business Office
- 3. Office
- 4. Executive Assistant's Office
- 5. Storage
- 6. Toilet
- 7. Main Collection Area

New Walls
 Existing Walls

GREEN ROOF

LINE OF WALL BELOW

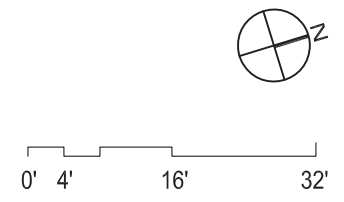


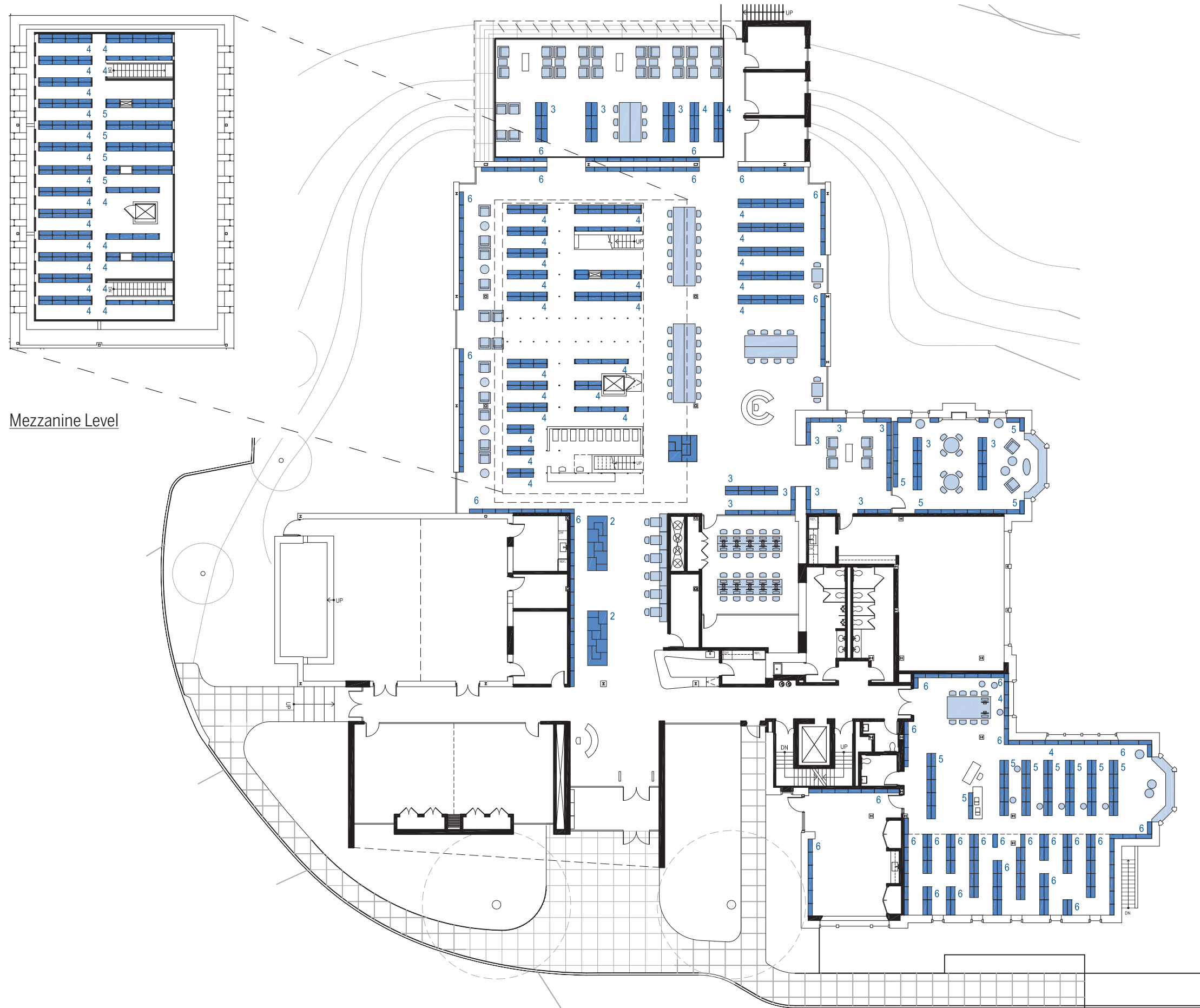


OPTION B - Lower Level

- 1. Local History
- 2. Custodian's Office
- 3. Magazine Storage
- 4. Supply Storage
- 5. Book Fair
- 6. Mechanical Room
- 7. Storage
- 8. Toilet

New Walls
 Existing Walls





[Blue Box] Stacks
 # of shelves [Arrow pointing to a number] # of shelves
 [Light Blue Box] Seating

Main Collection

Required Stacks = 5,827 LF
 Proposed Stacks = 5,826 LF
 Proposed Seats = 47 seats

Reference

Required Stacks = 188 LF
 Proposed Stacks = 192 LF
 Proposed Seats = 36 seats

Young Adult

Required Stacks = 360 LF
 Proposed Stacks = 429 LF
 Proposed Seats = 18 seats

Children's Area

Required Stacks = 2,986 LF
 Proposed Stacks = 2,874 LF
 Proposed Seats = 24 seats

Cafe

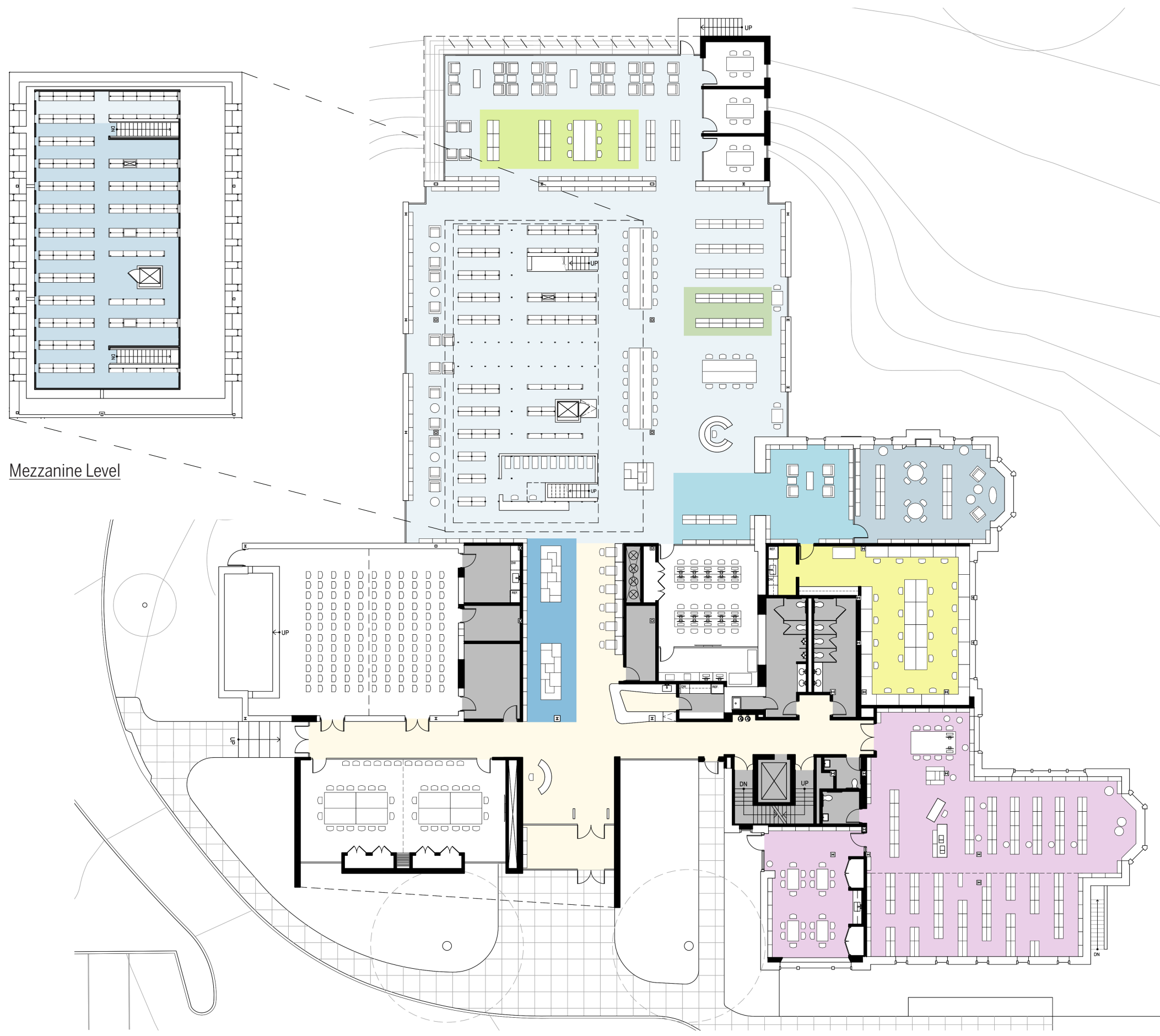
Proposed Seats = 12 seats

Technology Suite

Proposed Seats = 20 seats

(Note: In Children's Area 6th shelf used for display only)

Mezzanine Level



Mezzanine Level

- Magazines / Newspapers
- Reference
- Adult Non-Fiction
- Adult Fiction
- Adult Non-Book Media
- Adult Browsing
- Young Adult
- Children's Area
- Staff Area

III. Consultants

Site/Civil/Landscaping | **Divney Tung Schwalbe**

Structural | **Hage Engineering PC**

MEP | **Kallen & Lemelson Consulting**

A/V & IT | **Shen Milsom & Wilke LLC**

Lighting | **Domingo Gonzalez Associates**

Roofing | **Watsky Associates**

Sustainability | **YR&G**

Cost Estimate | **Toscano Clements Taylor**

Civil/ Landscaping Summary [Divney Tung Schwalbe]

The following site work description is based on Dattner Architects' Option A scheme for the improvements to the Scarsdale Public Library. At the end of this section, there is a description of how site work would be affected with the selection of Dattner Architects' Option B scheme.

Existing information noted below is based on the Thomas C. Merritts Land Surveyors, P.C. survey prepared on June 19, 2015. This survey does not include a complete survey of underground utilities. It is possible underground utility information may affect proposed design elements or their locations. Future boring and percolation tests may also affect proposed design elements.

Proposed Site Design (see "Schematic Site Plan" Figure SDC-1)

The proposed site changes respond to new building elements and additions and include:

- A new main entrance plaza area with new pavement and benches,
- A new walkway from the main entrance plaza area to the side parking area,
- A new walkway and steps from the side parking area to the secondary building egress on the south face of the new addition,
- A 24 foot long drop curb along the main entrance walkway for passenger loading with a striped area between the drop curb and the opposite parking spaces,
- A realigned walkway from the front entrance area to the side door for service,
- A patio area at the basement level for staff use,
- A new stairway at the basement level for emergency egress,
- A shift southwest of the existing driveway to accommodate the front building addition,
- A new concrete pad and screen fence for an emergency generator in the parking lot island,
- The relocation of the stone monument and plaque in the parking lot island, and
- The relocation and re-establishment of three of the four existing rain gardens (to be relocated as close to their existing location as possible).

Proposed Schematic Site Engineering and Stormwater Management (see "Schematic Site Engineering Plan" Figure SDC-2)

As previously noted, three of the four existing rain gardens will be displaced by the proposed plan. The displaced rain gardens will be re-established as close to their existing locations as possible. Re-establishment will include relocation and reconnection of existing piping, cisterns, control units and any other features associated with the existing rain gardens. For budgeting purposes, we suggest the cost of relocation and re-establishment of the three rain gardens is probably similar to the original cost of the rain garden project. The original Dvirka and Bartilucci drawings for the rain garden project are included in this report.

To address new impervious areas, the proposed plan includes green roofs on the new building additions (see architectural information included in this report) and pervious paving at the main entrance and new walkways. Catch basin filters or hydrodynamic separators may be used for other new pavement areas. Once underground utility information is provided, the site engineering plan can show connections from proposed catch basins and underdrains to existing on site storm drainage (if feasible) or daylighting to the existing water course. It is possible that some existing utilities may have to be adjusted or relocated per the proposed plan. These connections will be evaluated when the survey information is available.

Proposed Landscape Design (see "Schematic Landscape Plan" Figure SDC-3)

To the extent feasible, the proposed landscape plan will maintain existing trees and planted areas. Per the trees recorded on the recent survey, we anticipate the removal of six trees: two at the main entrance due to the footprint of the proposed building addition (16" and 18" tree), one in the parking lot island due to the driveway shift (8" tree), three at the northwest building corner due to the proposed deck and relocated rain garden (18" twin tree, 22" oak, 10" clump tree). We recommend an arborist evaluate the two existing trees to remain at the front entrance and prepare a report with pre, during and post construction measures. Depending on the final limit of disturbance, it may be prudent to evaluate other trees if they are adjacent to proposed construction.

The proposed landscape plan includes decorative planting (ornamental trees, evergreen and deciduous shrubs, ornamental grasses, and perennials) at focal areas such as the main entrance and south façade. Small trees and/or large shrubs and an evergreen tree

have also been located at the northwest building corner to screen views of the new addition from Olmsted Road. The plant palette will include primarily native plants. All plants will be low maintenance and deer tolerant. The toxicity of proposed plants will be considered for those planting areas adjacent to pedestrian traffic. The diverse plant palette will provide four season interest to the landscape including spring and summer flowers, fall color, and winter berries and evergreen leaves. Lawn areas will be re-established in disturbed areas not otherwise planted. A proposed plant list is included at the end of this section. As noted on the list, the proposed landscape plan includes 1 shade tree, 2 ornamental trees, 4 evergreen trees, 120 deciduous and evergreen shrubs and groundcovers, 250 perennials and ornamental grasses plus an additional 50 shrubs and 200 grasses in the watercourse buffer. These numbers do not include plants required for re-establishing displaced rain gardens.

To the extent feasible, relocated rain gardens will be replanted as originally designed per Dvirka and Bartilucci's rain garden construction document set dated February 2014. Some plant locations may need to be adjusted for variations in garden shape or size but overall plant quantities for the three rain gardens is not anticipated to change.

To accommodate the building expansion to the west, there will be some impact to the 25 foot wetland/watercourse buffer. As such, mitigation planting (including native shrubs and grasses) is proposed around the perimeter of the watercourse.

Proposed Materials and Site Elements

The following materials and site elements correspond to information shown on Sheets SDC-1, 2 and 3.

- Asphalt pavement (vehicular): 6" base course NYSDOT item 304.11; 3½" compacted asphaltic concrete base NYSDOT item 403.12; 1½" compacted asphaltic concrete top course NYSDOT item 403.16.
- Concrete pavement (pedestrian): 5" of ¾" crushed stone bedding course; 5" of 4000 psi class A concrete with 6" x 6" W2.0xW2.0 welded wire mesh
- Stone curb alongside driveway – salvage and reuse existing stone curb; if additional curb is required, it shall match existing
- Concrete steps and retaining wall at northeast building corner: 4000 psi class A concrete; 7" high risers with 12" deep treads; 2" O.D. welded steel pipe handrails (both sides of steps) primed and painted black
- Steps and handrails at southwest façade: (5) bluestone treads 8' long x 18" deep x 4" high with decorative aluminum handrail both sides
- Concrete unit pavers (pedestrian): colored concrete unit pavers
- Concrete unit pavers – pervious (pedestrian): pervious colored concrete unit pavers
- Gravel base beneath proposed northeast deck: 6" deep gravel bed beneath deck
- Bench: 6' long metal framed bench with ipe wood slats (assume allowance of \$2500 per bench)

Dattner Architects' Option "B" Scheme

Based on our comparison of Dattner Architects' Option A and B schemes, we note the following differences that would impact site work.

Reduced front entry expansion area:

- We do not foresee any significant site work differences that would result from the reduced size of the front building entry

No expansion of basement area:

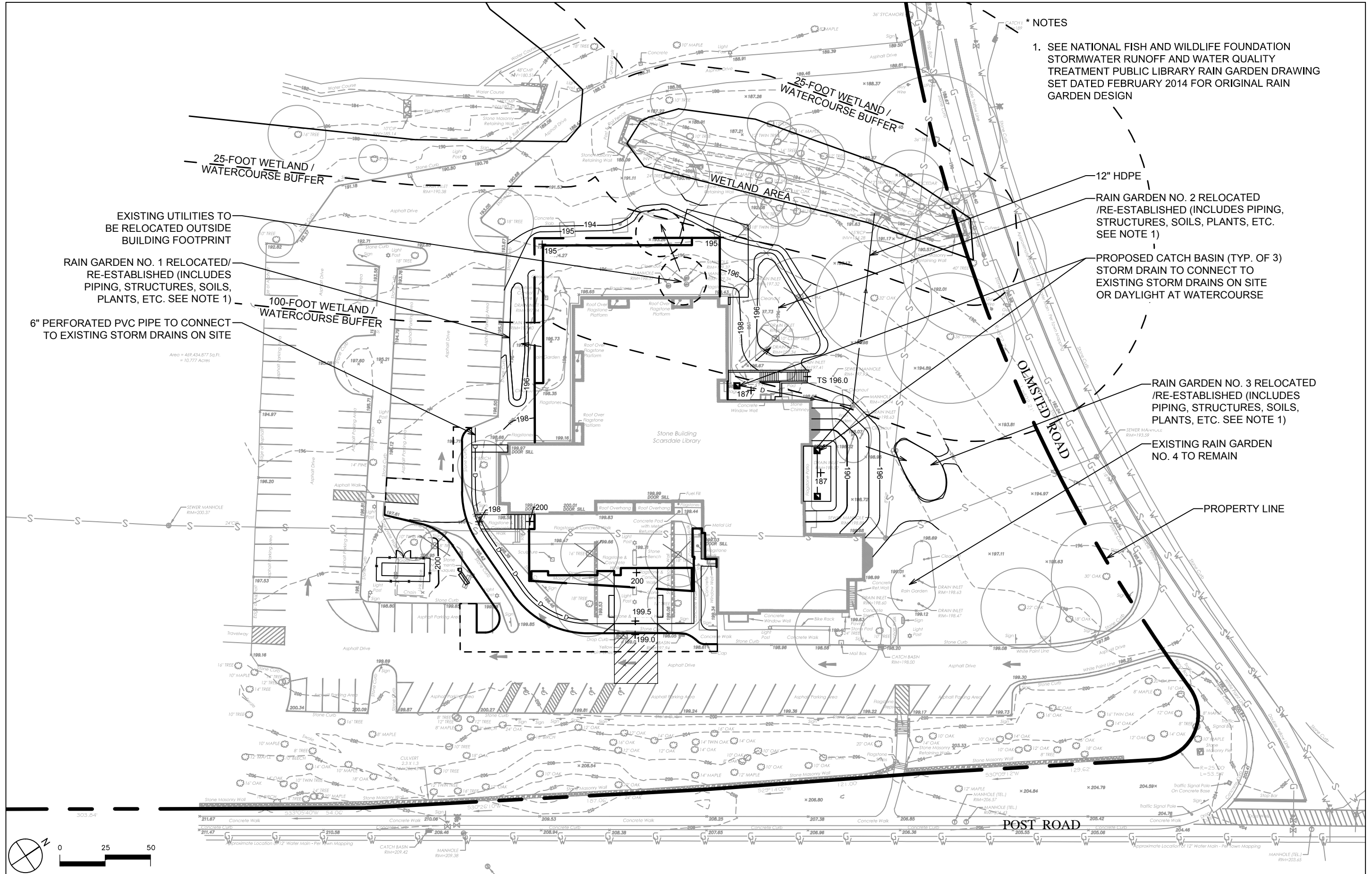
- Remove concrete steps and concrete retaining wall at northeast building corner from scope
- Remove concrete patio area at basement level and associated graded slope from scope
- Remove catch basins and storm piping at basement egress areas/patio from scope
- Do not include removal of two existing trees (22" oak and 10" clump tree)
- Rain Gardens 2 and 3 to remain in place (no relocation and re-establishment required)
- Do not include planting of one 3-3 ½" caliper shade tree or lawn re-establishment in this area

Removal of south portion of southwest building addition from scope:

- Remove from scope 15 shrubs at 30"-36", 15 shrubs at 24-30"
- Rain Garden 1 to remain in place (no relocation and re-establishment required)

Proposed Plant List

SCHEMATIC DESIGN PLANT LIST			
BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
SHADE TREES		3-3 1/2" cal.	1
Liquidambar styraciflua 'Rotundiloba'	Rotundiloba Sweetgum		
ORNAMENTAL TREES		8'-10' hgt.	2
Cercis canadensis 'Ace of Hearts'	Ace of Hearts Eastern Redbud		
EVERGREEN TREES		5'-6' hgt.	3
		10'-12' hgt.	1
Ilex spp.	Columnar Holly species		
Juniperus spp.	Columnar Juniper species		
Picea spp.	Spruce species		
DECIDUOUS & EVERGREEN SHRUBS AND GROUNDCOVERS		4'-5' hgt.	10
		36"-48"	10
		30"-36"	50
		24"-30"	50
Buxus spp.	Boxwood species		
Clethra alnifolia spp.	Summersweet species		
Cornus spp.	Dogwood species		
Hydrangea spp.	Hydrangea species		
Ilex glabra spp.	Inkberry species		
Ilex verticillata 'Red Sprite'	Red Sprite Winterberry		
Juniperus spp.	Juniper species		
Potentilla fruticosa spp.	Bush Cinquefoil species		
Viburnum dentatum spp.	Arrowwood Viburnum species		
PERENNIALS AND ORNAMENTAL GRASSES		1 gal. cont.	250
Achillea spp.	Yarrow species		
Coreopsis spp.	Tickseed species		
Echinacea spp.	Coneflower species		
Hosta spp.	Hosta species		
Pachysandra	Japanese spurge		
Panicum virgatum spp.	Switchgrass species		
Pennisetum alopecuroides spp.	Fountain Grass species		
Salvia spp.	Sage species		
WATERCOURSE BUFFER PLANTING - SHRUBS		24"-30"	50
Clethra alnifolia spp.	Summersweet species		
Myrica pensylvanica	Bayberry		
Viburnum dentatum spp.	Arrowwood Viburnum species		
WATERCOURSE BUFFER PLANTING - GRASSES		1 gal. cont.	200
Andropogon scoparium	Little Bluestem		
Carex appalachia	Appalachian Sedge		
Carex pennsylvanica	Pennsylvania Sedge Grass		
Panicum virgatum spp.	Switchgrass species		
SEED MIXES			(SF)
Lawn Grass: Sun/Shade seed mix with 50% Sonata Perennial Rye, 30% Creeping Red Fescue, 10% Chewings Fescue, 10% Kentucky Bluegrass			
RAIN GARDENS			
See Sheet C4 Landscape Plan of Public Library Rain Garden drawing set. Reconstructed rain gardens include gardens 1, 2 and 3.			
NOTES			
1. All new and disturbed lawn areas to receive Lawn Grass seed mix.			
2. Quantities listed in plant list are for reference only. Contractor shall verify all quantities shown on list and shall be responsible for furnishing all plants indicated on plan.			
3. All plant beds shall receive 3" double shredded hardwood mulch unless otherwise noted on plans, specifications or details.			
4. No recycled soil to be utilized in landscaped beds or other planting areas.			



*** NOTES**

- SEE NATIONAL FISH AND WILDLIFE FOUNDATION STORMWATER RUNOFF AND WATER QUALITY TREATMENT PUBLIC LIBRARY RAIN GARDEN DRAWING SET DATED FEBRUARY 2014 FOR ORIGINAL RAIN GARDEN DESIGN

EXISTING UTILITIES TO BE RELOCATED OUTSIDE BUILDING FOOTPRINT

RAIN GARDEN NO. 1 RELOCATED/RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

6" PERFORATED PVC PIPE TO CONNECT TO EXISTING STORM DRAINS ON SITE

12" HDPE

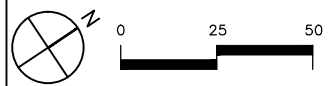
RAIN GARDEN NO. 2 RELOCATED/RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

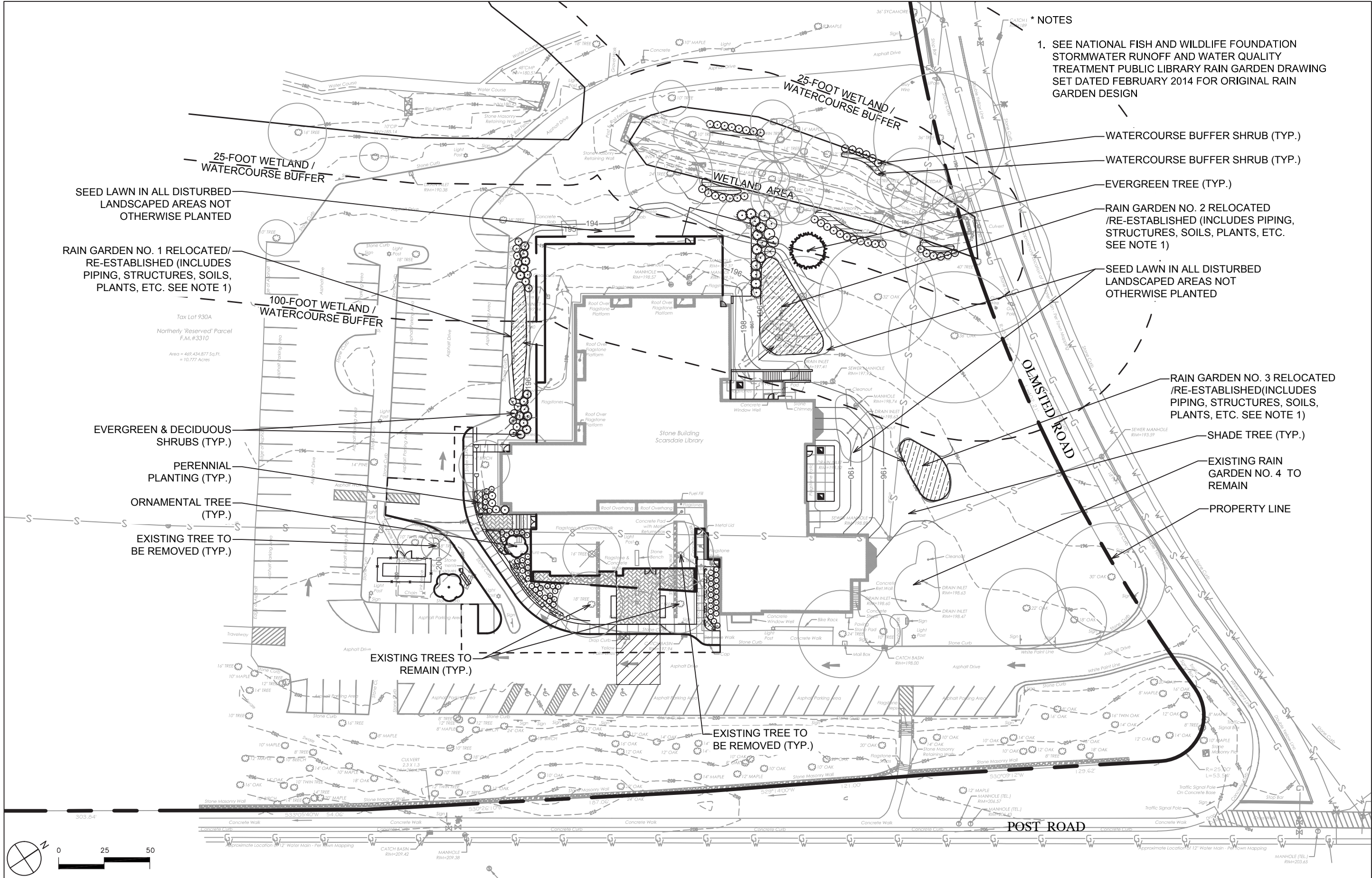
PROPOSED CATCH BASIN (TYP. OF 3) STORM DRAIN TO CONNECT TO EXISTING STORM DRAINS ON SITE OR DAYLIGHT AT WATERCOURSE

RAIN GARDEN NO. 3 RELOCATED/RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

EXISTING RAIN GARDEN NO. 4 TO REMAIN

PROPERTY LINE





*** NOTES**

- SEE NATIONAL FISH AND WILDLIFE FOUNDATION STORMWATER RUNOFF AND WATER QUALITY TREATMENT PUBLIC LIBRARY RAIN GARDEN DRAWING SET DATED FEBRUARY 2014 FOR ORIGINAL RAIN GARDEN DESIGN

SEED LAWN IN ALL DISTURBED LANDSCAPED AREAS NOT OTHERWISE PLANTED

RAIN GARDEN NO. 1 RELOCATED/RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

WATERCOURSE BUFFER SHRUB (TYP.)

WATERCOURSE BUFFER SHRUB (TYP.)

EVERGREEN TREE (TYP.)

RAIN GARDEN NO. 2 RELOCATED /RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

SEED LAWN IN ALL DISTURBED LANDSCAPED AREAS NOT OTHERWISE PLANTED

EVERGREEN & DECIDUOUS SHRUBS (TYP.)

PERENNIAL PLANTING (TYP.)

ORNAMENTAL TREE (TYP.)

EXISTING TREE TO BE REMOVED (TYP.)

RAIN GARDEN NO. 3 RELOCATED /RE-ESTABLISHED (INCLUDES PIPING, STRUCTURES, SOILS, PLANTS, ETC. SEE NOTE 1)

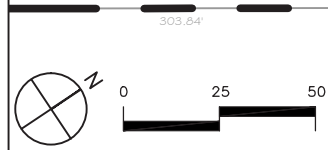
SHADE TREE (TYP.)

EXISTING RAIN GARDEN NO. 4 TO REMAIN

PROPERTY LINE

EXISTING TREES TO REMAIN (TYP.)

EXISTING TREE TO BE REMOVED (TYP.)



Tax Lot 930A
 Northerly 'Reserved' Parcel
 F.M.#3310
 Area = 469,434.877 Sq.Ft.
 = 10.777 Acres

Stone Building
 Scarsdale Library

POST ROAD

OLEMSTED ROAD

Structural Summary [Hage Engineering]

Introduction

The following items were used in producing this study:

- Schematic Design background drawings prepared by Dattner Architects
- Architectural and Structural drawings prepared by Alfred Morton Githens & Raphael Hume Associated Architects dated January 16, 1950 and describing the original 1950s building
- Architectural and Structural drawings prepared by Gibbons Heidmann & Salvador revised Nov. 19, 1973 and describing the 1970s addition
- Architectural and Structural drawings prepared by Gibbons Heidmann & Salvador copyright dated 1998 and describing the 1990s bookstack mezzanine addition
- The New York State Building Code, 2010 edition

2. Structural Systems of Existing Structures

1950s Building:

The 1950s building is constructed of reinforced concrete and structural steel, with typical exterior walls of loadbearing masonry with stone masonry at the exterior. The first floor, at approximately grade elevation, consists of framed reinforced concrete slabs supported on reinforced concrete beams, walls and columns/piers. There is a mostly unfinished basement throughout the 1950s building, with what appears to be a concrete slab on grade and reinforced concrete foundation walls. At the western portion of the building, the north, south and west exterior walls appear to be supported on grade beams bearing on reinforced concrete piers with footings at a lower elevation than the typical foundation walls. The basement floor in this wing slopes up from the first interior column line toward the exterior grade beams. The foundation walls and footings appear to bear on soil.

Above the first floor, steel columns support steel beams, girders and trusses, with framed reinforced concrete slabs spanning between the steel framing and to the exterior walls. There is a partial second story at the central portion of the building. The roof over the second story appears to be framed with steel trusses spanning between the north and south exterior walls creating a rectangular flat-top roof sloping on all (4) sides, with infill framing of steel beams and reinforced concrete slabs. Flat and gabled roofs of reinforced concrete slabs supported on steel framing and masonry walls cover the remaining one-story portions of the building.

1970s Addition:

The 1970s addition was constructed as a 1-story building, adjoining the western portion of the south wall of the original building and extending to the south and west. The first floor is constructed of framed reinforced concrete slabs at approximately grade elevation, supported on reinforced concrete grade beams and pile caps. The grade beams and pile caps are supported on timber piles.

The roof is typically a flat roof supported on steel beams and steel columns. The roof slab construction appears to be gypsum concrete slabs over formboard on steel tees spanning between the roof beams. There is a high roof at the southwest portion of the building, approximately 7'-6" above the typical flat roof elevation. The high roof construction is similar to the typical roof construction, supported on steel columns that bear on the typical roof-level framing. A mechanical enclosure is constructed immediately to the east of the high roof, with the walls of the enclosure approximately matching the high roof elevation.

The exterior walls appear to be non-bearing masonry walls with stone masonry at the exterior.

1990s Bookstack Mezzanine:

A mezzanine level was added under the high roof in the 1990s. Structural steel columns support the mezzanine level slab and the bookshelves at ground floor and mezzanine levels.

3. Potential Structural Modifications

Please refer to the attached schematic structural plans for a preliminary arrangement of framing and foundations to support the proposed additions. The plans depict the more extensive option (Option A). The structural work related to the modifications that are part of Option A only would not be required for Option B. Other differences between the options are outlined below.

New structural steel framing and metal deck slabs with concrete topping as required for loading and fire rating requirements could be provided for the proposed new additions, supported on new reinforced concrete foundations. Structural steel columns with moment connections to the supported beams (as shown at the proposed west addition), and reinforced concrete shear walls (as shown at the proposed east addition) could provide the lateral force resisting systems.

New lintels may also be required for openings in the existing exterior walls for access to the additions. Based on the March 24, 2009 Scarsdale Public Library – Roof Evaluation Survey and Report many of the limestone lintels above many of the doors and windows on the 1970's addition are cracked and require investigation. The existing cracked lintels may require additional support or replacement. Miscellaneous steel framing will also be required for the proposed slab openings and infill, with concrete on metal deck slabs at infill areas, as shown in the schematic plans.

At the 1950s building, structural modifications would be required for the installation of the proposed elevator. The proposed elevator shaft construction is reinforced CMU walls bearing on a new reinforced concrete mat slab. Existing concrete beams interrupted by the proposed opening in the first floor slab would be re-supported on the shaft walls, and the slab would bear on the new shaft walls all around the opening. The existing second floor mezzanine level slab would be removed and replaced with a new concrete on metal deck slab with steel framing. A wall brace is proposed along the south exterior wall at the elevation of the removed slab. The existing roof in this area would be removed and replaced with a new flat roof at a higher elevation, requiring the existing masonry exterior walls in this area to be extended up to the new roof elevation.

The second floor of the 1950s building was studied for potential of modifying / removing existing partitions. Based on the available drawings, these partitions appear to be non-structural in nature and could be removed.

We completed a preliminary review of the existing bookstack mezzanine structure to determine the feasibility of modifying / removing the structural stacks and providing new support for the mezzanine level that would allow more flexibility for the first-floor program in that area. The existing bookstacks at the first floor and mezzanine appear to be an independent structure added in approximately 1998 and could be removed entirely, as proposed in Option A. In Option B, the bookstacks would remain, with one of the stair openings at mezzanine level in-filled with a new concrete on metal deck slab.

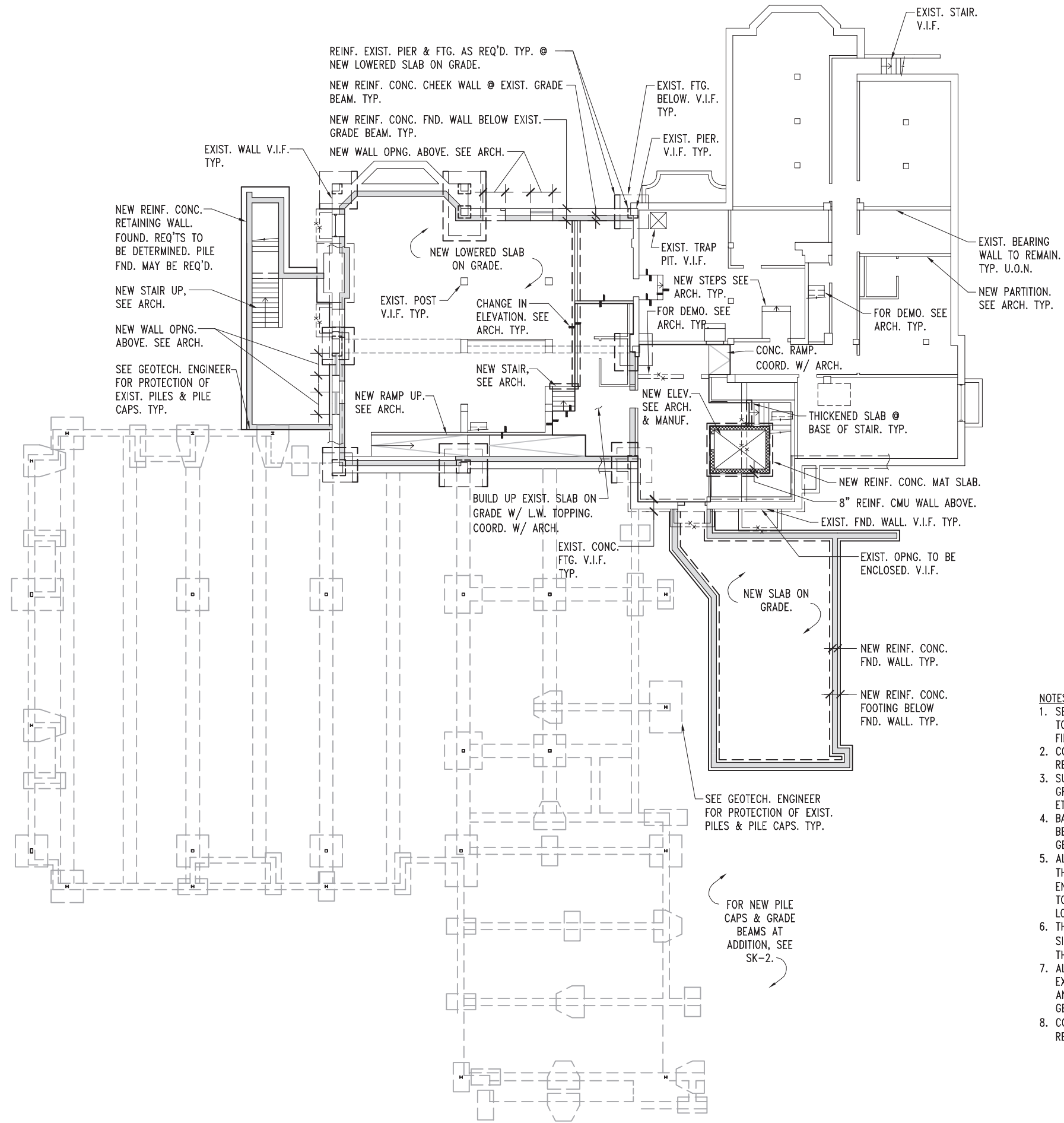
We have also completed a preliminary review of the existing flat roof framing at the 1970s addition for supporting photovoltaic panels. It may be feasible to install photovoltaic panels on a frame that is supported on new or existing structural steel roof framing. The existing steel beams and/or girders may require reinforcement. The arrangement and requirements for this option remain to be determined.

Geotechnical investigation will be required before the next phase of design in order to determine the most appropriate foundation system(s) and bearing elevations, protection requirements for the existing foundations, subgrade and fill requirements, and other geotechnical requirements for the proposed additions. New foundations adjacent to the existing buildings will have to be designed and installed so as not to undermine the existing foundations, with bearing below the local frost line. Underpinning (by others) may be required if there are locations where the proposed new construction extends below the existing foundations that bear on soil. The geotechnical engineer should also review the implications for the existing foundations of the proposed stepped excavation and areaway at the north and west of the 1950s building, respectively. The existing foundation may require underpinning to bear below frost line relative to the proposed lower grade.

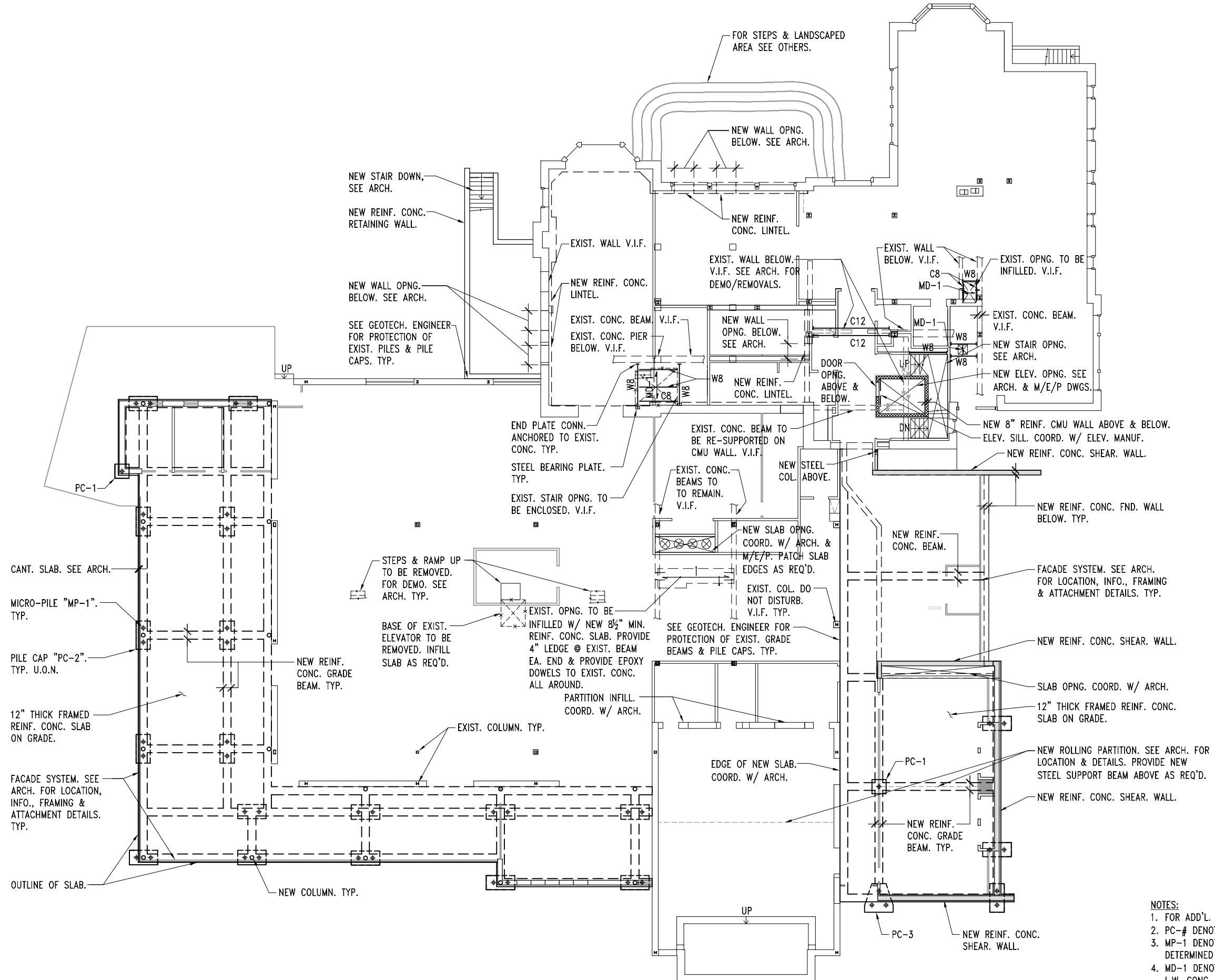
The foundation systems shown in the schematic structural plans are based on assumptions and preliminary observations only, and are designed to approximately match the existing foundation systems. The findings of the geotechnical report will determine the actual foundation systems to be used. Revisions to the schematic structural foundation plans may be required.

The primary schematic design option (Option A) includes lowering most of the basement slab at the west wing of the 1950s building to create more usable space within the footprint of the existing building. This will require reinforcement of the existing grade beams in that wing, and may also require reinforcement of the existing piers and footings.

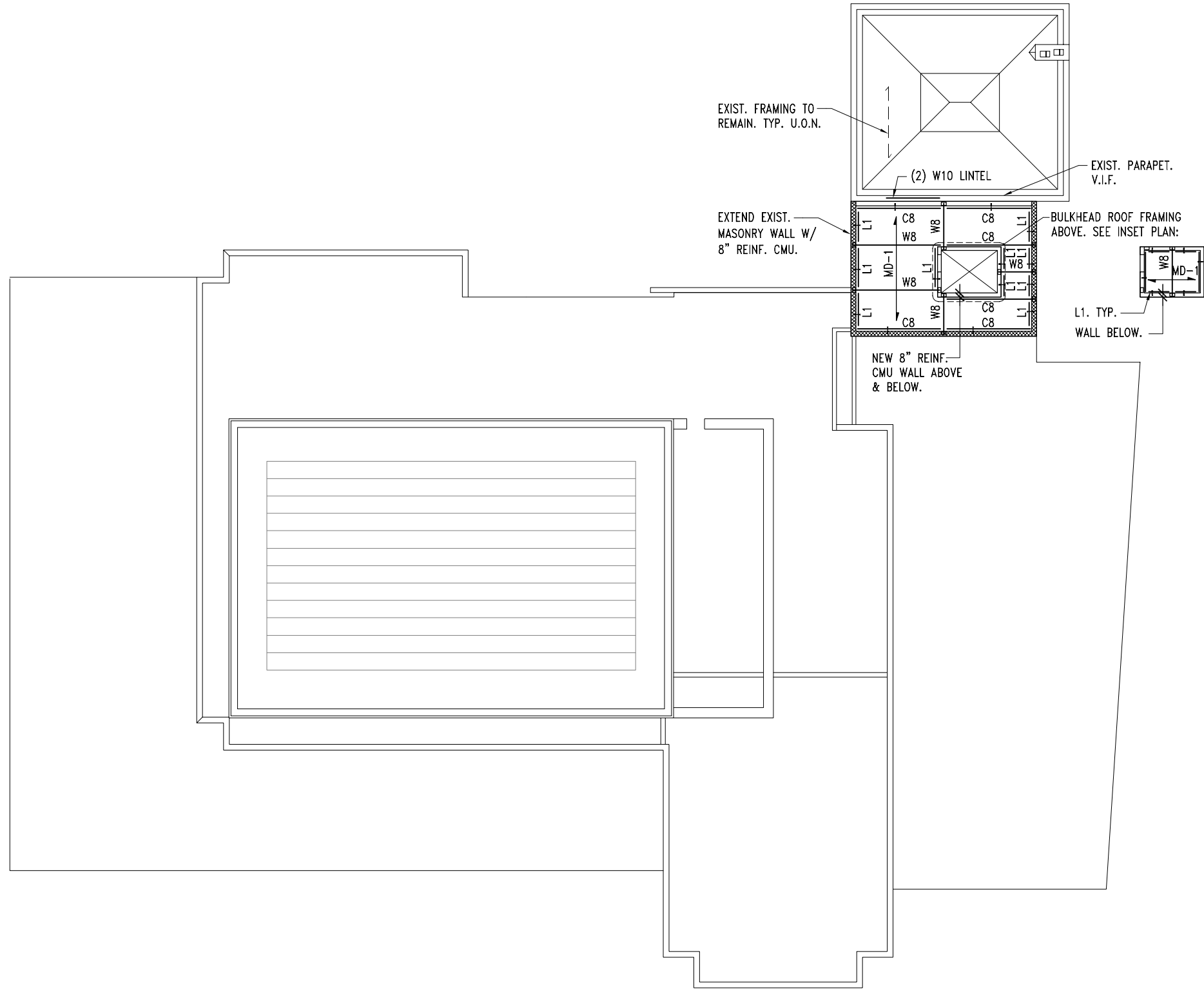
Please note that this report and the schematic structural plans are preliminary and based only on existing drawings and limited field observations. Existing conditions exposed by probing and later during construction may require additional or modified structural reinforcement and framing.



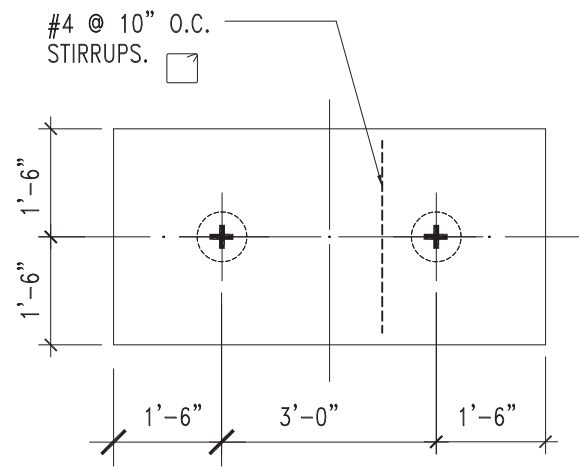
- NOTES:**
1. SEE ARCH. DWGS. FOR ALL DIMENSIONS, ELEVATIONS, CLEARANCES, TOLERANCES, DEMOLITION, WATERPROOFING, FLASHING, INSULATION, FIREPROOFING AND FINISHES.
 2. COORD. WITH ARCH. FOR ALL ARCHITECTURALLY EXPOSED CONCRETE REQUIREMENTS.
 3. SUB-GRADE AT ALL MAT SLABS, GRADE BEAMS, PILE CAPS & SLABS ON GRADE TO BE EXCAVATED, PREPARED, FILLED, PROOFROLLED, PROTECTED, ETC. AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
 4. BACKFILL AGAINST PILE CAPS, GRADE BEAMS, AND EDGE OF SLAB SHALL BE GRADED, PLACED, AND COMPACTED AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
 5. ALL SHEETING, SHORING AND OTHER SIMILAR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HIS/HER PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND SHALL BE SUBJECT TO SPECIAL INSPECTIONS AS REQUIRED BY THE NEW YORK STATE AND LOCAL BUILDING CODE.
 6. THE CONTRACTOR IS TO SUBMIT ALL PILE DESIGNS AND PROCEDURES, SIGNED AND SEALED BY HIS/HER LICENSED PROFESSIONAL ENGINEER TO THE GEOTECHNICAL ENGINEER FOR REVIEW.
 7. ALL FOUNDATION SYSTEMS SHOWN ARE BASED ON ASSUMPTIONS AND EXISTING DRAWINGS. RECOMMENDED FOUNDATION TYPES AND CAPACITY AND ADDITIONAL REQUIREMENTS TO BE DETERMINED FOLLOWING THE GEOTECHNICAL INVESTIGATION.
 8. COORDINATE WITH ARCH. & M/E/P FOR LOCATIONS AND SUPPORT REQUIREMENTS OF NEW MECH. EQUIPMENT.



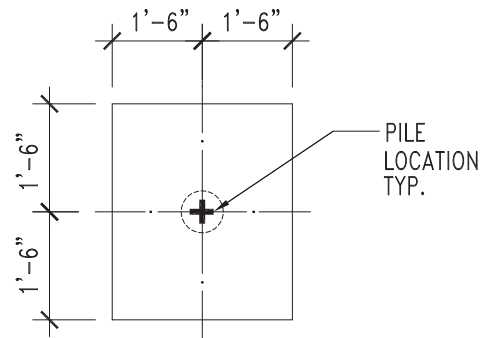
- NOTES:
1. FOR ADD'L. NOTES SEE SK-1.
 2. PC-# DENOTES: 36" THICK REINF. CONC. PILE CAP.
 3. MP-1 DENOTES: MICRO-PILE. CAPACITY & DESIGN TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
 4. MD-1 DENOTES: 1½" DEEP COMP. METAL DECK W/ ¾" (MIN.) L.W. CONC. TOPPING REINF. W/ W.W.M.



NOTES:
1. FOR ADD'L. NOTES SEE SK-1 & SK-3.



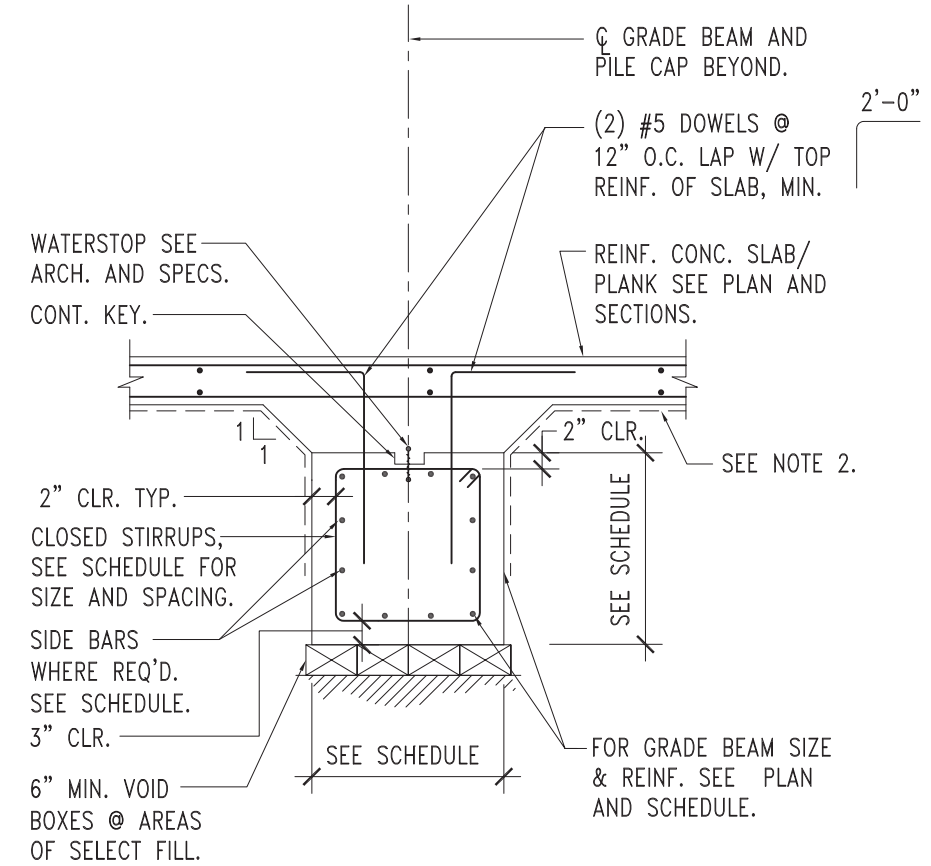
PC-2
36" THICK
5 #6 T&B LONG BARS



PC-1
30" THICK @ PC-1
(5) #5 T.&B., E.W.

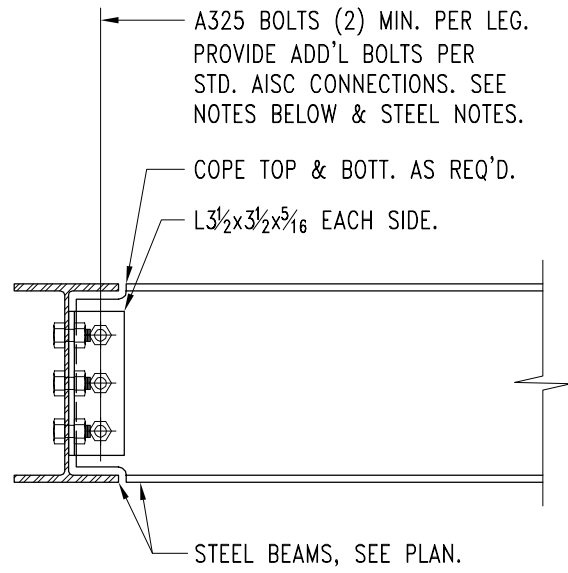
NOTES:

1. C OF PILE CAP TO MATCH C OF COL./WALL TYP. U.O.N.
2. SEE PLAN FOR LOCATION & ORIENTATION OF ALL PILE CAPS.
3. HOOK ALL REBARS AT EACH END.
4. BASED ON FINAL SURVEY OF AS-BUILT PILE LOCATIONS, PILE CAPS ARE TO ENLARGE TO MAINTAIN A DIST. OF 1'-6" FROM CENTERLINE OF PILE TO EDGE OF CAP IN BOTH DIRECTIONS. IF CAP ENLARGES MORE THEN 4", PROVIDE (1) TOP AND BOTT. BAR FOR EA. DIRECTION OF GROWTH.



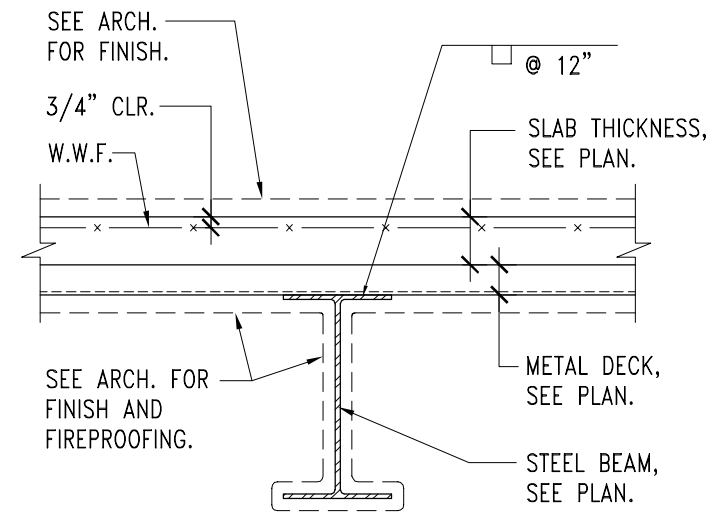
NOTES:

1. LAP CONT. BARS W/ 48 BAR ϕ 'S AS REQ'D AND PROVIDE STANDARD HOOKS AT ENDS.
2. SEE ARCH. FOR GEOTEXTILE VAPOR BARRIER & GRAVEL REQUIREMENTS.



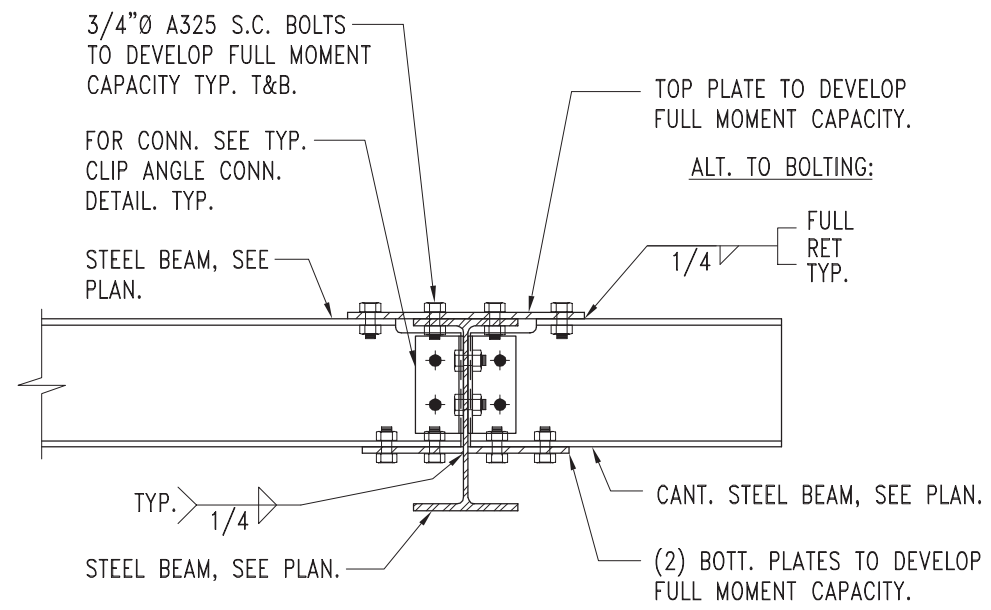
NOTES:

1. PROVIDE (2) BOLTS MIN. FOR BEAMS 8" DEEP OR LESS.
2. PROVIDE (3) BOLTS MIN. FOR 10", 12" AND 14" DEEP BEAMS.
3. PROVIDE (8) BOLTTTS MIN. FOR 24" DEEP BEAMS.
4. AS AN ALTERNATE PROVIDE 1/4" FILLET WELD ALL AROUND.
5. PROVIDE DETAIL ABOVE AT CHANNEL TO CHANNEL CONNECTION DETAIL.



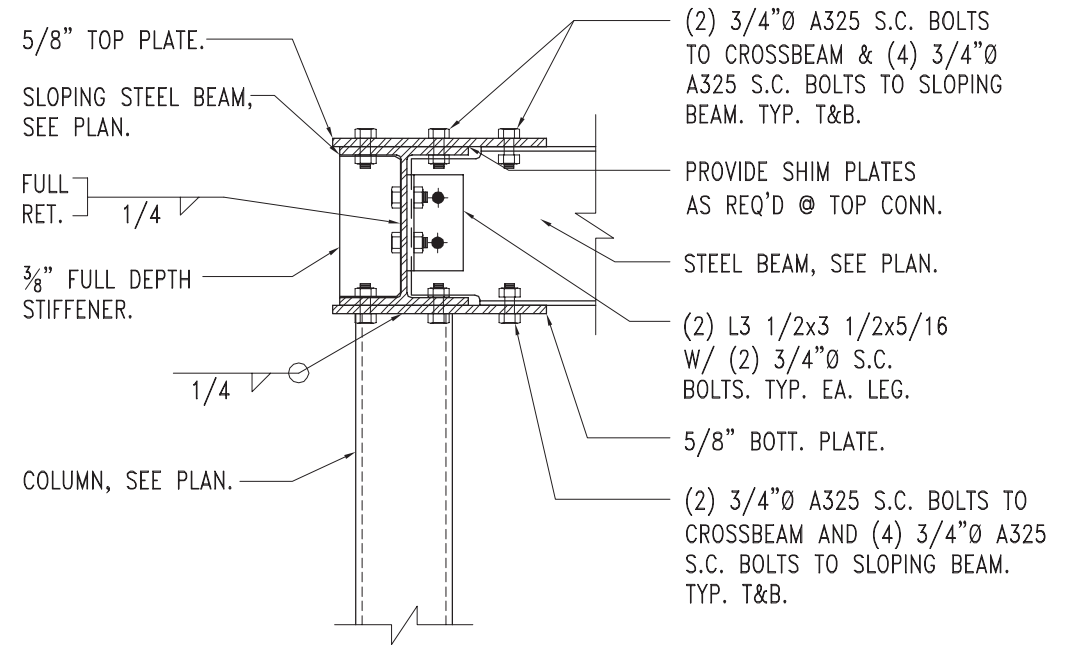
NOTES:

1. MESH TO BE SUPPORTED AS REQUIRED TO MAINTAIN PROPER LOCATION WITHIN SLAB THICKNESS.
2. SEE ARCH. FOR BEAM & METAL DECK WATERPROOFING AND PAINTING SYSTEM REQ'TS.



NOTE:

1. PROVIDE FULL CONTACT SHIMS AT TOP FLANGE AS REQ'D.



HVAC

Option A

A. Scope

- New HVAC installations under Option A include replacement of all underfloor ductwork installed as a part of the 1973 addition with new ductwork located above ceilings.
- Additional recommended HVAC upgrades of existing areas within the building can be found under Section VII.A.3- Miscellaneous Options.
- All unit and device capacities are approximate and are provided for estimating purposes only.
- Refer to original design drawings and to the proposed Architectural plans for areas of work and the extent of modifications described here-in.

B. 1st Floor

1. Meeting Rooms 1 and 2 Renovation

The existing Multipurpose Room is heated and air conditioned from the existing rooftop multizone rooftop unit.

The original system was designed to provide 5,800 CFM to the space from the ceiling from 1 dedicated temperature control zone, and an additional 500 CFM from 4 low wall registers supplied from a 2nd zone that also serves the front Lobby. This results in a high air change rate of more than 3 CFM/sq ft. It is probable that this excessive supply air quantity is necessary to provide the proper ratio of outdoor air for ventilation. The original design ratio of outdoor air to recirculated air is not known.

The room will be divided by a new foldable partition, thereby creating two spaces when the partition is closed. Individual temperature control must therefore be provided for each half of the former Multipurpose Room.

Based on the existing airflow to the space, provide all new distribution ductwork from the existing multizone unit supply duct located at column line F, provide (4) 1,450 CFM bypass VAV terminals; diffusers; return air grilles; internally lined ducts; and new ATC for the new VAV terminals ; etc.

Under the proposed design either heating or cooling can be provided to both spaces, but one space cannot be heated while the other is cooled.

The existing 4 low wall supply registers will be removed, and instead new return air duct risers will draw air from floor level to encourage the circulation of supply air from the high ceiling to the floor.

2. Meeting Rooms 3 and 4 and Corridor Addition, and Basement Book Sorting

The new meeting room addition will be served by a new 3,200 CFM VAV packaged rooftop unit with supply and return/relief air fans; VFD's; direct expansion (DX) cooling; hot gas reheat; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc.

Provide one 850 CFM VAV terminal for each meeting room, and a 250 CFM terminal for the new circulation corridor. Provide all new distribution and return air ductwork; diffusers; return air grilles; ATC, etc., as required for a complete installation.

Provide additional 1,200 CFM capacity with supply and return ducts extended to the future Book Sorting Room in the Basement.

Provide finned tube radiation below the windows or exterior wall in each meeting room. Provide hot water cabinet heater(s) in the corridor. Provide insulated piping served from the existing boiler.

Interlock radiation ATC with new supply rooftop unit and with thermostatic VAV terminal control.

3. Lobby and Café Addition

Existing underfloor ductwork supplying air distribution at the east exterior wall will be abandoned in place. A new overhead air distribution system must be provided, supplied with cooling and heating air from the former Lobby zone of the rooftop multizone unit.

Remove vertical duct serving the underfloor ductwork to above the ceiling. Extend all new insulated ductwork above the ceiling to serve the Lobby and Café addition. Provide new diffusers of style selected by Architect.

Provide pedestal radiation or similar below storefront in east wall. Provide hot water cabinet heater in ceiling of vestibule. Provide new insulated heating hot water piping connected to the existing boiler plant.

Provide ATC to control the existing multizone supply air zone dampers, and to interlock radiation output with supply air temperature control.

4. Young Adults/Reading Gallery/Study Room Additions

The new south and west additions will be served by a new 7,500 CFM VAV packaged rooftop unit with supply and return air fans; VFD's; direct expansion (DX) cooling; hot gas reheat coil; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc.

Provide 900 CFM VAV coil for the Young Adults Room; (4) 1,500 CFM terminals for the Reading Gallery; and (3) 200 CFM terminals for the 3 Study Rooms. Provide all new distribution; ductwork; ATC, etc., as required for a complete installation.

Provide hot water pedestal-type radiation below the fenestration on the south and west exposures of the Reading Gallery addition, together with distribution piping, ATC, etc. Insulated piping will run below the radiation in the new crawl space below the additions. Provide radiation in the Study Rooms as well. Integrate heat output of radiation with the VAV terminal and rooftop unit furnace control. Extend radiation piping from the existing boiler plant.

Provide (4) hot water unit heaters in crawl space to maintain floor slab temperature.

5. New Toilet Rooms

Provide a new roof-mounted spun aluminum exhaust fan with ductwork to Men's and Women's rooms and to 2 WC rooms. Supply air to each room from the existing supply air system located in the Basement. Extend a new duct from the Basement to the 1st Floor ceiling and extend to the Men's and Women's rooms. WC rooms will transfer exhaust makeup air from adjacent spaces.

6. Techno Room and Home Office

Provide a dedicated 1,000 CFM packaged rooftop unit with supply and relief air fans; VFD's; direct expansion (DX) cooling; hot gas reheat coil; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc.

Provide insulated supply air ductwork; diffusers; return grilles; ATC, etc., as required for a complete installation.

7. Existing areas with Heavy Renovation in original library (Quiet Reading, Study Room, Children's Area, Home Office)

These areas will continue to be supplied from the existing air handling unit located in the Basement. Existing supply air is ducted vertically from the Basement distribution ductwork. Scope shall include 50% modification of the existing Basement ductwork, and all new 1st Floor duct risers; wall registers and overhead distribution in selected spaces where ceiling construction permits.

8. Existing areas with Heavy Renovation in 1973 Addition (Reference, Collections, Circulation)

This two story area will continue to be supplied with cooling and heating from the existing packaged rooftop multizone unit.

All existing underfloor distribution ductwork will be abandoned in place. A new overhead air distribution system must be provided, supplied with cooling and heating air from the 3 former stack area zones (core, north perimeter and south perimeter) of the rooftop multizone unit.

Remove vertical ducts serving the underfloor ductwork to above the ceiling. Remove the vertical ducts that extend from below the floor to serve the interior zone (2nd level stacks). Extend all new insulated ductwork above the ceiling from the multizone unit location on the roof to the renovated space. Provide new diffusers of style selected by Architect.

C. Basement

1. Book Sorting

Connect all new distribution ductwork to vertical supply and return duct risers provided from the 1st Floor Meeting Rooms 3 and 4 rooftop unit as described in Section VII.A.b.2). Provide (1) 1,200 CFM VAV terminal. Provide complete installation including insulated supply and return ducts; diffusers and registers; and ATC installations.

2. Local History, Basement Storage and Utility, New Elevator Core)

Provide new distribution ductwork connected to the Basement air handling unit trunk ducts. Provide insulated supply and return ductwork, diffusers and return registers for each occupied space. Provide (4) new zone control dampers and ATC for damper control and interface with the air handling unit controls.

3. Staff Stations Room

Provide a dedicated 2,500 CFM packaged rooftop unit with supply and relief air fans; VFD's; direct expansion (DX) cooling; hot gas reheat coil; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc.

Provide insulated supply air ductwork; diffusers; return grilles; ATC, etc., as required for a complete installation within the space.

Locate the unit on the roof above the 1st floor collections area and extend supply and return ductwork above the Collections area ceiling and down to the Basement Staff Stations space.

D. 2nd Floor

1. Offices, Elevator Core

Provide a dedicated 2,000 CFM VAV packaged rooftop unit with supply and relief air fans; VFD's; direct expansion (DX) cooling; hot gas reheat coil; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc. Locate the unit on the flat roof west of the new addition. Extend ductwork down through the 1st floor roof; extend east to the 2nd floor Storage Room location, and rise vertically to the 2nd floor ceiling.

Provide insulated supply and return ductwork to each space in the 2nd floor. Provide (5 VAV terminals; diffusers and registers, and ATC as required.)

Remove existing ductwork that currently supplies air to the 2nd Floor from the Basement air handling unit. Use spare capacity created in the existing unit to serve the increased Basement occupied spaces.

Option B

A. Scope

- New HVAC installations under Option B will be limited to those required to serve new additions, and new heavily renovated spaces created within the existing building, except that work will also include replacement of all underfloor ductwork installed as a part of the 1973 addition, with new distribution ductwork located above ceilings.
- Additional recommended HVAC upgrades of existing areas within the building can be found under Section VII.A.3- Miscellaneous Options.
- All unit and device capacities are approximate and are provided for estimating purposes only.
- Refer to original design drawings and to the proposed Architectural plans for areas of work and the extent of modifications described here-in.

B. 1st Floor

1. Meeting Rooms 1 and 2 Renovation

See Section A.1.b.1) for the scope of work also provided under Option B.

2. Meeting Rooms 3 and 4 and Corridor Addition

See Section A.1.b.2) for the scope of work also provided under Option B.

3. Lobby and Café Renovation

See Section A.1.b.2) for the scope of work also provided under Option B.

Adjust for reduced square footage under Option B vs. Option A.

4. Quiet Reading/Reading Gallery/ Study Room Addition

The new west addition will be served by a new 4,000 CFM VAV packaged rooftop unit with supply and return air fans; VFD's; direct expansion (DX) cooling; hot gas reheat coil; natural gas furnace; outdoor air economizer; CO2 dynamic ventilation air control; air filtration, etc.

Provide (2) 1,700 CFM terminals for the Reading Gallery; and (3) 200 CFM terminals for the 3 Study Rooms. Provide all new distribution; ductwork; ATC, etc., as required for a complete installation.

Provide hot water pedestal-type radiation below the fenestration on the west exposure of the Reading Gallery addition, together with distribution piping, ATC, etc. Insulated piping will run below the radiation in the new crawl space below the additions. Provide radiation in the Study Rooms as well. Integrate heat output of radiation with the VAV terminal and rooftop unit furnace control. Extend radiation piping from the existing boiler plant through the Reference Area ceiling.

Provide (2) hot water unit heaters in crawl space to maintain floor slab temperature.

5. New Toilet Rooms

See Section A.1.b.5) for the scope of work also provided under Option B.

6. Existing areas with Heavy Renovation in original library (Young Adults Room, Staff Stations Renovation, Children's Program Room)

These areas will continue to be supplied from the existing air handling unit located in the Basement. Existing supply air is ducted vertically from the Basement distribution ductwork. Scope shall include 50% modification of the existing Basement ductwork, and all new 1st Floor duct risers; wall registers and overhead distribution in selected spaces where ceiling construction permits.

7. Techno Room and Home Office

See Section A.1.b.6) for the scope of work also provided under Option B.

8. Existing areas with Heavy Renovation in 1973 Addition (Reference, Collections, Circulation)

See Section A.1.b.8) for the scope of work also provided under Option B.

C. Basement

Storage and Utility, New Elevator Core

Provide new distribution ductwork connected to the Basement air handling unit trunk ducts. Provide insulated supply and return ductwork, diffusers and return registers for each occupied space. Provide (4) new zone control dampers and ATC for damper control and interface with the air handling unit controls.

D. 2nd Floor

Offices, Elevator Core

See Section A.1.d.1) for the scope of work also provided under Option B.

HVAC Options

- Add redundant Heating Pump
- Upgrade Additions' Air Conditioning to Geothermal
 - Geothermal is an environmentally friendly approach to heating and cooling the new additions. The system does not burn fossil fuel to heat the building, and the operation of the air conditioning in the summer is more efficient.
 - Geothermal will extract heat from the earth in the winter by means of a circulated water loop in sealed ground wells. The fluid will be transported to new roof-mounted heat pumps where the heat will be transferred from the water to the supply air, thereby heating the additions. In the summer the reverse will occur. Heat will be removed from the building by the heat pumps and transferred to the circulated water for transport to the wells. The heat will then be transferred to the earth surrounding the wells.
 - Geothermal systems are more efficient than the HVAC solutions provided under Options A and B because of the benign temperature of the ground in both summer and winter. The heat pumps do less work than any other type of system because the ground temperature is close to the building indoor temperature. Geothermal heat pumps are much more efficient than heat pumps that use outdoor air as the source of heat in the winter, or as the medium to which heat is rejected in the summer.
 - Geothermal systems are more costly than the systems provided under Options A and B. However they will reduce operating cost over the life of the building.

- Replace all new packaged rooftop units with Water source heat pumps utilizing a closed well field as the year round source of heating and cooling
- Refer to Options A and B for equipment sizes to be replaced
- Provide a closed well field comprising 150' deep wells assumed to provide 3 tons capacity each. Provide 20 wells each requiring 100 sq ft of space on grade.
- Provide duplex 180 gpm base mounted pumps with all accessories for a typical closed hydronic system. Locate in a mechanical room in the Basement. Provide antifreeze solution. Provide all interconnection piping from the well field to the pumps, and from there to each rooftop hydronic heat pump.
- All assumptions about the well field size must be confirmed.

Electrical

A. Option A & Option B

Scope

Unless specifically noted, the description of systems below applies to both options.

Existing Service and Distribution

The Scarsdale Library is served by an 800 Amp, 120/208V, 3 Phase, 4 Wire Con Edison service. To an 800A Service Distribution board. Floor distribution panels are supplied from said distribution board via fused disconnect switches. The DP panels in turn feed light and power panels for the library. There is no emergency or stand-by power source currently in the building.

B. Proposed Service and Distribution

- Construction phasing requirements must be reviewed with the library staff and an acceptable construction phasing plan developed and documented
- A new 250KW generator will be provided in order to supply standby power to the building. The generator will be natural gas fired and will require a gas booster pump. Refer to plumbing systems write-up for additional information on the natural gas system.
- A new Service Distribution board will be installed at the electrical service location. The Distribution Board will be temporarily powered from the existing service. The existing feeders to the existing Distribution Boards will be re-routed to the new Distribution Board and the existing Distribution board will be disconnected and removed.
- A new 800A Service Rated Automatic Transfer Switch (SRATS) will be installed at the incoming service. This in turn will be connected to the existing incoming service on the normal side, the emergency generator on the emergency side and the new Service Distribution Board on the load side.

Option A

New Distribution Board and new light and power panel boards will be provided in the new addition to supply the additional HVAC and lighting and receptacle loads.

The loads in the portion of the facility undergoing "light renovation" will be re-connected to the existing sources of supply.

Option B

The loads in the portion of the facility undergoing "light renovation" will be re-connected to the existing sources of supply.

C. Proposed Lighting and Receptacle System

Option A

Existing lighting and receptacle system will be replaced and/or modified to suit the new layout. New areas of work will be powered from the new panelboards serving the new area. The lighting and receptacle devices in the areas being renovated will be powered from the existing circuits extended to new locations. Lighting fixtures designated for emergency use will be provided with integral battery packs for instant-on operation. Daylight Harvesting Control System will be provided for control of new areas of the facility. Manual-on-automatic-off vacancy sensors will be provided in all private offices.

The Main Collection Area will have a raised floor allowing new and future power/telecommunication cables to be installed underneath in flexible conduit and junction boxes. End User power/telecommunication connections will be made utilizing a recessed floor assembly system (floor service boxes) connected via power whips from the under raised floor junction boxes. The combination of the raised floor and floor service boxes will achieve flexibility and a more non-intrusive method for adding new and/or relocating floor mounted devices.

Option B

The lighting and receptacle devices will be powered from the existing circuits extended to new locations. Lighting fixtures designated for emergency use will be provided with integral battery packs. Manual-on-automatic-off vacancy sensors will be provided in all private offices.

D. Proposed Photovoltaic System

Option A

A new 24KW photovoltaic array system will be located on the roof. The system will consist of solar panels, inverters, and other equipment as needed to construct a fully operational system. The systems' installation will require coordination with Utility Company and a replacement of the existing metering equipment.

E. Fire Alarm System

Existing Fire Alarm System

The existing Fire Alarm panels are located inside the existing Electrical Service Room. This configuration does not comply with current Electrical and Life Safety code requirements but may be continued while the existing system is operational. The system does not have spare capacity to include the additional devices that would be required by the new design.

Option A - Proposed Fire Alarm System Modification

New addressable Fire Alarm extender panel will be provided and connected to the existing Fire Alarm panel. The new panel should be located outside the Electrical Service room in a protected environment so as not to propagate the existing code non-compliance. The panel will be connected to the existing Fire Alarm system for annunciation and monitoring. The possibility of locating the Extender Panel in the ground floor lobby within sight of personnel, or in a protected environment should be investigated.

Plumbing

Option A and B

Scope

Options A and B are similar in execution. The scope of work for each Option is determined by the extent of the new construction and indoor renovations included in each Option.

Drainage, Waste and Vent (DWV) and Domestic Water

- The complete relocation of existing plumbing installations to new locations limits the reuse of existing piping. Of the total of new DWV above grade piping, assume that 10% of existing piping will be reused.
- Demolish existing plumbing fixtures, hot and cold water, and DWV piping where not required to serve new installations as noted below.
- Existing DWV piping below the Basement floor slab will be reused to serve new Basement installation and to receive drainage piping from the 1st Floor. Remove (or abandon in place) and cap any piping dead ends in excess of 2' long. Trench and install new underfloor cast iron hub and spigot piping as required to connect Basement fixtures to existing piping. Assume reuse of 50% of existing underfloor piping and 50% new for the basement installations.
- An existing sanitary manhole is located outside the building, east of the new Basement Staff Stations Room, in an area to be excavated. Refer to Civil Site Drawings for required modifications.
- Provide 90% new above grade no-hub cast iron DWV piping to connect the new 1st and 2nd Floor plumbing installations to existing underfloor piping and/or sewer connections.
- Assume reuse of 25% of existing cold and hot domestic water piping to serve the new installations. The remaining 75% shall be new type L copper, insulated.
- The existing gas-fired tank type domestic water heater shall be reused.
- New plumbing fixtures shall have automatic faucets and flush valves, hard wired.
- Provide sump pump with hydrocarbon sensor in new elevator shaft. Pipe discharge to visible location for drainage.

Roof Drainage

- Existing drainage piping serving existing roofs will remain. Protect all underground piping to remain within the areas of new construction against damage.
- Where new roofing is applied to existing roof areas provide new roof drains in the same location as existing.
- New roof areas will be provided with roof drains and overflow roof drains. Provide no hub cast iron interior leaders to connect new roof drains to the existing storm drainage system. Insulate horizontal piping above grade.
- South and west additions will connect to the existing 12" storm drainage pipe at the west exterior wall of the existing stack space.
- East additions will connect to the existing 12" storm drain pipe located below the new Lobby.
- Existing storm drainage manhole located east of the existing Lobby will be covered by the new east addition construction. Refer to Civil Site Drawings for modifications.
- Exterior storm drainage piping located east of the existing Lobby will be covered by the construction of the new east addition and elevator core. Assume replacement of all affected piping east of the storm drainage manhole, to 10' beyond the new east wall of the addition, with new cast iron hub and spigot piping. Provide temporary means of draining affected roof leaders during construction.
- Drinking fountains located at Men's and Women's rooms will be refrigerated-type with high and low receptors.

Natural Gas Piping and Booster Pump Set

- Extend natural gas piping from current building entry point north of the Basement MER to serve new installations. Provide new schedule 40 steel piping in parallel with existing piping serving the existing multizone rooftop air conditioning unit.

- New piping will rise on the north façade of the building and extend across the roof to serve furnaces in the new packaged roof-mounted air conditioning units described in Section VII.A.
- Further extend the natural gas piping to drop on the west facade of the building. Cross the new paved parking and drive areas below grade with schedule 40 steel piping (with corrosion-resistant coating) to connect to the new packaged gas-fired natural gas generator. Provide duplex gas pressure booster pump set in weatherproof enclosure adjacent to the new generator.
- Paint all piping exposed to the weather.

Fire Suppression (Sprinkler) Option

Option A and B

- Provide a complete wet pipe sprinkler system suitable for a combination of light and ordinary hazard areas. Book stack areas and spaces exposed to the book stacks will be ordinary hazard.
- Provide new 4" schedule 40 steel water service from the water main in Olmstead Road.
- Sprinkler piping shall be schedule 40 steel in sizes up to 3", and schedule 10 in sizes 4" and above.
- Provide concealed-type heads in lay-in ceilings, centered both ways in tile. Special ceiling areas, where vaulted and pitched ceilings affect the head locations, may have head locations in sidewalls, soffits, or other suitable solution.
- Book stack coverage must be a minimum of 18" above the top of the shelving for coverage. Otherwise, heads must be provided in each aisle.
- Pressure and flow in Olmstead Road is adequate, with 90 PSI static, and 60 PSI residual at a flow of 1,424 GPM. No fire booster pump should be required.

Information Technology Infrastructure [Shen Milsom & Wilke LLC]

Introduction

This report describes the components and systems that make up the proposed communications infrastructures within the renovation of the Scarsdale Public Library.

The purpose of this report is to provide clear communications, coordination, and understanding between Shen Milsom Wilke, LLC (SMW), Dattner Architects, and Scarsdale Public Library. It is designed to provide valuable information to architects, engineers, technical and non-technical readers for the ongoing coordination efforts required for a successful project.

The overall technology philosophy proposed for the Library refers to how the infrastructure must have the technical flexibility to deliver the highest quality technology today and in the future.

Please note that this report is not intended as a specification or design, but rather as an outline to provide information on the telecommunications cabling and technology infrastructure requirements and strategies.

Report Objectives

This report defines the standards, criteria, and assumptions SMW intends to use for the design, documentation, and specification of a communications infrastructure to support the project and will form the basis of the design for the project, unless modified in writing, prior to design commencement.

Project Site

The Scarsdale Public Library located on 54 Olmsted Road Scarsdale, NY 10583 is an existing space that will be renovated and expanded to include the meeting rooms, the children's area, main lobby, and office spaces. There is currently a wired network in place provided by Westchester Library Systems IT Group, as well as a wireless network in place for library staff and general public use.

Scope Of Report

Dattner Architects has retained the services of SMW, Inc. to describe the telecommunications infrastructure required to support the various voice, data and video systems likely to be deployed within the Scarsdale Public Library facility.

These guidelines address pathways, spaces and cabling designs necessary to sustain various information transport systems. Such systems include an existing administrative telephone system for voice and voice grade services, local area network (LAN) systems, and wireless LAN systems.

Basis Of Report

This report was originally based on a meeting attended by SMW on June 4, 2015 at the Dattner office located at 1385 Broadway attended by Scarsdale Public Library staff and members of Dattner Architectural team and follow up discussion with Robert Coluori, Director of IT Westchester Library System. This report is also based on the following project specific document:

- Scarsdale Public Library Backgrounds provided by Dattner Architects.

Codes And Standards

Applicable Portions Of The Codes, Standards, Regulations And Recommendations Of The Following Entities Shall Be Observed In The Design Of The Telecommunications Cabling System And Supporting Facilities:

- National Electrical Code (NEC).
- American National Standards Institute (ANSI).
- National Electrical Manufacturers Association (NEMA).
- Electronic Industries Alliance/Telecommunications Industry Association (EIA/TIA).
- Building Industry Consulting Services International (BICSI).
- Institute of Electrical & Electronics Engineers (IEEE).

- Underwriters Laboratories (UL).
- National Fire Protection Association (NFPA).
- American Standards Association (ASA).
- Federal Communications Commission (FCC).
- American Society of Testing Materials (ASTM).

In the event of conflicts, the more stringent provisions shall be applied.

Physical Building Infrastructure

The physical infrastructure is comprised of three elements: (1) the cable that interconnects devices, (2) the pathways that are provided for the cable to be distributed (cable tray, in floor conduit, horizontal and vertical pathways, etc.) and (3) the technology support spaces (Intermediate Telecommunications Rooms, Main Telecommunications room, with appropriate environmental HVAC, UPS power, etc.).

Infrastructure is often the easiest of the variables to predict and implement, because there are generally accepted principles upon which to base the design process. Simply stated, the goal of an infrastructure is to provide a structured, applications independent scheme that is tailored not to a particular technology, but to supporting the widest range of current and future technologies.

Structured Communications System

The concept of a telecommunications infrastructure as an applications-dependent design customized for telephone, data and video networking is no longer valid. Today's technology environment is increasingly IP-based and the Internet Protocol (IP) is now the dominant communications protocol for data networking. Convergence of data, voice, video, security, BMS, public address, lighting, and AV into the IP realm is rapidly proceeding.

As a result of the universal and applications-independent nature of communications cabling, a telecommunications infrastructure designed to support IP transport is best served with a more inclusive naming convention. The term Structured Communications System (SCS), accentuates the ability of the communications cabling system to support these applications and technologies over a standardized cabling system.

SCS is used within this document to refer to the cabling system within the building, interconnecting all technology spaces throughout the facility, from the Point of Entry room through the Building Distribution Frame (BDF) Room, Intermediate Distribution Frame (IDF) Rooms and ultimately out to workstation/user interface outlets, providing connectivity to network-connected devices.

The strategic goal of the SCS is to provide an "applications independent" cabling system, which will allow any technology to be connected over the building-wide cabling system. Through adherence to documented industry standards, the installed structured communications system will immediately become accepted by most manufacturers of network-connected equipment and will enable free selection of equipment based on actual network design needs, rather than based on particular and thereby limited product lines by a single manufacturer.

Telecommunications Infrastructure

This section defines the standards, criteria and assumptions which will be used for the design, specification and documentation of the MIT telecommunications infrastructure. This infrastructure addresses pathways, spaces and cable media designs which support various service-provider information transport systems, including but not limited to individual telephone equipment to support voice and voice-grade services, wireless LAN connectivity and local area network (LAN) systems.

Specific Areas Covered Herein Include:

- Definition of the intra-building pathway and space systems which will house the telecommunications cabling infrastructure and

associated transport electronic equipment.

- Definition of horizontal and backbone cable distribution and termination methods, which will define a "ubiquitous" cabling system, capable of supporting the majority of information transport requirements over the life cycle of the facility.
- Definition of known programming and technological changes which are anticipated over the life-cycle of the building, providing maximum flexibility to the operation, administration and management of the infrastructure system

Building Distribution Frame (BDF) room

The BDF is the central hub of telecommunications connectivity for the voice, data and video links within the Scarsdale Public Library building. There currently is no BDF room located in the library, per conversation with IT group. Equipment is mounted on the wall in the basement level. The BDF can also be a point of termination and cross connection for fiber optic and copper backbone cables.

The BDF may provide for the following services:

- Structured Cabling System (SCS) backbone terminations (both copper and optical fiber)
- Voice communications hardware, e.g. administrative PABX or other telephony equipment (VoIP) to support the voice communications
- Local Area Networking equipment (switches, routers, firewalls, etc)
- Wide Area Networking equipment
- Wireless LAN Networking equipment
- CATV communications equipment
- Carrier Distributed Antenna System (DAS) or circuit termination equipment

It is assumed that the current network area in use at the library is not sufficient to accommodate the number of network connections needed to complete the renovation project.

Intermediate Distribution Frame (IDF) rooms

The Intermediate Distribution Frame (IDF) Rooms are defined as the interface between the backbone cabling system and the horizontal cabling system. The IDF rooms, located on each floor, provide space for backbone and horizontal cable terminations, patching and cross-connect equipment, LAN/WLAN electronics and interfaces between the cabling backbone, transport electronics and end user devices.

Criteria established under the EN50173:2002 Standard for Generic Cabling Requirements as well as TIA 568B set forth distance limitations on high performance cabling systems, which will be discussed in the Cabling Systems section below, but has a direct effect on the placement of these distribution rooms. The IDF rooms should be located so that installed and terminated horizontal cable lengths do not exceed 90 meters.

The recommended provisions for the IDF rooms:

1. Each room shall have an area of at least 130 square feet, but shall be sized to accommodate the number of connections it is initially intended for, plus an addition 20% for growth. The rooms shall be rectangular in shape. Rooms shall be vertically stacked where possible; in cases where it is not possible to stack they shall be connected via (4) 4" conduits.
2. The IDF rooms shall be fitted to support the following types of systems and equipment:
 - Termination and patching facilities for horizontal (workstation) cabling.
 - Termination and patching facilities for copper (voice and data) and fiber (data) backbone (riser) cabling.
 - Hardware and racking for LAN switches and network electronics.
3. Additionally, space may be allocated within each Telecommunications Room to house media and equipment associated with:
 - Building management system (BMS).
 - Fire and life safety system.

- CATV/MATV/video distribution systems.
 - Security Systems
4. Cabling associated with radio frequency (RF) distribution, i.e. slotted radial coaxial cable, if required, shall not be installed within the Telecommunications Rooms.
 5. IDF rooms shall be of slabtoslab construction, to facilitate the outfitting of the rooms for environmental conditioning and fire protection/isolation. A suspended ceiling is not required or desired.
 6. IDF Room walls shall be a minimum 1hour fire rated construction. All penetrations shall be sealed to prevent the passage of fire, cold smoke and gases.
 7. IDF rooms shall be fully sprinkled with sidewall sprinkler heads. Sprinkler heads shall be provided with cages. Wet pipes, either run overhead or along the walls shall not traverse the rooms.
 8. IDF rooms shall be furnished with 3/4-inch plywood on all designated walls that are more than 24' Wide, installed 6-inches AFF. Plywood shall be void free and either fire rated or treated on both sides with two coats of fire retardant paint. Recommended choice of paint color is matte white. Plywood shall be kiln dried to a maximum moisture content of 15%.
 9. Other finishes in the room shall be light in color to enhance lighting. Finishes shall be applied before room fitout. Concrete floors and walls shall be sealed and cured to eliminate dust. Floors shall be covered with anti-static vinyl tiles.
 10. All exposed fireproofing and/or insulation shall be sealed to prevent flaking and mitigate airborne dust.
 11. IDF rooms shall be furnished with a single door of at least 36-inches wide by 80-inches high and be fitted with access control.
 12. The recommended environmental limits for the IDF rooms the recommended envelop stated in the ASHRAE TC9.9 Thermal Guidelines for Data Processing Environments.
 13. HVAC systems serving the IDF rooms shall be capable of 24-hours-a-day, 7-days-a-week operation. If overhead cooling units are utilized, units mounted outside the room with the air ducted into the room are preferred. Units, which must be installed in the room, shall be located away from telecommunications equipment, either on the wall or in racks, and shall be supplied with drip pans to preclude condensed water from damaging system components. Flow valves, bleeder valves and any other pipe filling associated with chilled water and return lines shall not be mounted overhead of the equipment cabinets. Water pipes associated with any other building systems shall not pass through the rooms.
 14. IDF Room load density may be preliminarily estimated at 75 watts per square foot based on the minimum 130 square foot room size.
 15. Lighting levels within the IDF rooms shall be minimum 50 footcandles maintained at 36-inches AFF.
 16. Power circuits for all telecommunications equipment located within the IDF Room should be fed from an electrical panel dedicated to these loads and located within the room.
 17. Each IDF Room shall be fitted with general purpose convenience duplex NEMA 5-20R receptacles mounted at building standard height spaced at a minimum 12' O.C. along perimeter of room.
 18. Each equipment frame (rack) shall have (2) duplex NEMA L6-30R receptacles, each on a dedicated circuit, mounted above on overhead ladder rack.
 19. All circuits must be labeled with machine printed panel board ID and circuit number(s).
 20. Additional dedicated electrical outlets may be required for other telecommunications hardware.
 21. Lighting fixtures, motors, air conditioning, etc. shall not be powered from the same electrical distribution panel as the telecommunications equipment in the IDF Rooms. Electrical transformers shall not be located within the IDF Rooms.
 22. A solid copper ground bar shall be provided in each IDF Room, for signal ground connections. This Telecommunications ground busbar (TGB) shall be bonded to the appropriate ground conductor per the "Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications," J-STD-607-A grounding standard.

It is currently assumed that an IDF room is not needed for this project. Through design development process there may be a requirement for an IDF room to accommodate any distance limitations and possible AV/Security equipment that may need to be housed in such a room.

IntraBuilding Pathway Systems

Conduits, cable tray and other fixed containment devices that support data/telecommunications cabling are a key component in the telecommunications infrastructure. Proper sizing, placement, routing and integration with other routed services will ensure connectivity and flexibility, which becomes a benchmark in the determination of a truly successful infrastructure.

Design parameters established herein follow guidelines established in the ANSI/TIA/EIA-569-B standards document. These standards

have been established in reference to the dynamic, changing nature of telecommunications cabling systems and provide guidelines to enable maximum cabling flexibility to accommodate change within MIT.

All pathways shall be designed to provide the capacity and capability to properly install high performance unshielded twisted pair and optical fiber cables day-one and in the future.

The Structured Communications System (SCS) cable distribution from the IDF rooms to each information outlet position will require a flexible pathway of appropriate dimension to accommodate day-one and future cabling installations. Also, ease of installation and cable maintenance are important in the selection of the appropriate pathway. The horizontal pathway will be provided within the plenum space above the suspended ceiling. Cable tray and cable straps (or J-hooks) will provide the pathway through the ceiling spaces. Consideration will be given to segregation from power cables and any other possible sources of interference.

All pathway routes should be coordinated with other building services (electrical, mechanical, etc.) to assure proper clearance and access, as well as to avoid impact from heat, electromagnetic interference or leakage from other building services. The pathway system shall be coordinated with the electrical distribution system in order to maintain a minimum 48-inches separation from motors or transformers, 12-inches separation between parallel runs of electrical cabling and 5-inches separation from fluorescent lights. Where 12-inch separation is not possible, the telecommunications cabling shall be separated from electrical cables by a ferrous material to minimize potential interference. Where electrical and telecommunications cabling cross, it shall be at right angles only.

The backbone cabling pathways from the BDF to the telecommunications risers within each TR should consist of (4) 4" conduits within the plenum space above the suspended ceiling for the telecommunications cabling. Separate cable trays or cable pathways should be provided for security, life safety and fire alarm systems. The tray should be of rigid ferrous metal construction, to provide physical protection from a service-level environment, and electrical protection from EMI/RFI and other signaling interferences.

The backbone copper and optical fiber cabling shall follow vertically aligned riser routes to carry the backbone cables to their respective floors for termination within the floor serving TRs. These pathways will accommodate the vertical cable distribution of all SCS cabling, both backbone and any inter-floor horizontal cabling which may be required. A minimum of four 4-inch sleeves shall be provided between floors in the Telecommunications Room for the routing of backbone cables. In cases where the IDF rooms do not align four 4 inch conduits shall be installed to connect them.

Within the BDF, 12-inch (minimum) ladder rack shall be provided for the routing of telecommunications cabling within the spaces. Placement of overhead and under floor racking shall be coordinated with light fixtures, ductwork, sprinkler heads and smoke detectors.

A minimum of (4) 4-inch conduit sleeves shall be provided in a side wall at 8' AFF of each TR for the routing of workstation cables out of the IDF room. Twelve inch wide, basket style cable tray shall be provided within the accessible ceiling spaces of the main corridors. Conduits of equal volumetric capacity shall be substituted where the cable tray would run through fire rated walls, or above inaccessible spaces. From the tray in the main corridors to the outlet (conduit stub) cables shall be support by J-Hook (or equivalent).

Where workstation outlets will be located in or along the perimeter walls of a room, the following may be considered:

- 1-inch conduit (minimum size depending on cable quantities), shall be used to install workstation cables. Wall mounted telecommunications outlets (for voice/data) shall be provided with a 4-inch by 4-inch electrical box at the bottom of the conduit. Wall mounted telephone outlets (+48-inches AFF) shall be provided with a 2-inch by 4-inch electrical box. A 3/4-inch conduit may be substituted for wall mounted telephones.
- A 1-inch conduit from accessible ceiling shall feed surface mounted raceways installed horizontally along the wall. Raceways may be partitioned to allow the mounting of power and telecommunications outlets. Raceways may be installed in continuous lengths inside or around corners. Each raceway shall be evaluated so that the quantity of conduits feeding it is equal to the capacity of the raceway using appropriate fill ratios (after de-rating for volume used by outlet jacks).

Where wall mounted outlets are not possible or practical due to open plan furniture locations, the following may be considered:

- A poke through fitting placed in a core hole to the ceiling of the floor below may be provided on floors other than the lower level. To provide maximum capacity, only poke through fittings utilizing a minimum 1¼ -inch partitioned conduit shall be considered.

Poke through fittings should only be considered where workstation cables and outlets are installed within fixed furniture systems. Poke through outlets shall be feed from the TR that serves the floor in which it is installed.

- Where modular furniture systems are used, the workstation cables may be routed within the base-line or belt-line raceway of the furniture system panels to outlets mounted within the panels. Furniture system panels shall provide for multiple telecommunications outlet faceplates.

Cable distribution systems that de-couple the outlets from the furniture components (wall outlets, raceways and floor-boxes) provide flexibility by allowing furniture to be moved or re-arranged without impact to the installed outlets. Such a system allows the installation and testing of cables to occur independent of the furniture installation schedule. They also allow a sufficient quantity of outlets to be installed without regard to the type of furniture selected.

Room geometry will impact the decision to utilize wall mount outlet solutions since furniture components would need to be located in close proximity to the wall and in continuous sections to allow line cords and power cords to route through the furniture to the outlets. The geometry will be influenced by the quantity of workstations, the line of sight to the instructor and display components (blackboard, screens, monitors) as well as the audiovisual programming.

Telecommunications Cabling System

The telecommunications cabling system shall be designed to conform to the requirements of ANSI/TIA/EIA568-B, Commercial Building Telecommunications Cabling Standard. In conformance with the above referenced standard, the telecommunications cabling system shall be designed in a hierarchical star topology, in the following manner:

All cables shall meet or exceed the mechanical and performance requirements of the standard. Horizontal cabling shall be homerun from each workstation information outlet to a TR on that floor or to closest TR room within ANSI/TIA/EIA568-B specifications.

Backbone cabling shall be homerun from the Main Equipment room to each TR. Cable length limitations shall be as follows:

1. Horizontal Cabling – 295 feet (90 meters) from the workstation information outlet to the termination equipment in the TR.
2. Backbone Cabling – 1,640 feet (500 meters) from the Main Telecommunications room termination equipment to the TR termination equipment.
 - Wherever possible, distribution of non ANSI/TIA/EIA568-B compliant cabling will be designed to conform to the above topological requirements.

The cabling system shall be designed to support:

Digital and analog voice and voice grade services, including basic and primary rate ISDN services.

Local Area Networks conforming to the IEEE 802 series of standards including, but not limited to, 10BaseT Ethernet, 4Mbps and 16Mbps Token Ring, 100Mbps, 155Mbps, 622Mbps and 1,000Mbps LAN, systems.

Intra-building Backbone Cabling

1. Voice backbone cables, consisting of a minimum of 50-pair UTP conductors shall be installed between the BDF and each IDF room (if room is required). Cables shall be terminated on 110-type termination blocks in the IDF and BDF rooms.
2. Data backbone cables, consisting of a minimum (24) Category 6A cables shall be installed between the BDF and each IDF room. Optical fiber shall be provided if BDF to IDF distances exceed 90 meters and if such the case single-mode fiber, terminated with LC connectors, shall be used.
3. All intra-building backbone cabling specifications shall conform to Westchester Library Systems (WLS) standards.
4. It is assumed that the current intra-building backbone cabling is sufficient to meet the needs of the renovation project.

Workstation Cable and Information Outlets

1. SMW shall use the following guidelines for workstation cabling and information outlets to confirm TR room sizes and pathway capacity:
2. Staff offices shall be provided with a standard information outlet and power.
3. Conference rooms shall be provided with sufficient cabling to provide connectivity. SM&W shall work closely with the IT staff in the design development phase determine the appropriate quantities and locations of outlets. Coordinate also with SM&W A/V requirements for conference room and meeting rooms.
4. Wireless access point outlets shall include (2) Category 6a cables.
5. All TV and monitor locations shall include (2) Category 6a cables. This will be coordinated with AV design standards.
6. Staff workstations shall be provided with standard information outlet and power.

Wireless Infrastructure

SM&W recommends that provisions be included in the design to locate wireless access points for data and voice applications throughout the renovated spaces focused mainly in office suites, meeting rooms, lobby areas and open/study areas where network mobility and ad-hoc network access may be desired by Library staff and visitors for mobile PDA access. SMW will work closely with the WLS IT staff to design the necessary physical infrastructure to support wireless infrastructure. However, all access points (APs), LAN switches, and other necessary network electronics shall be provided by others. SM&W has been informed that there is a current IT project to upgrade the wireless infrastructure. This will be taken into account for cabling numbers and WAP locations as design development gets under way.

Coverage Areas

The following design criteria should assist in the review of the wireless solution:

7. Wireless access points (APs) should be placed close enough to provide seamless and full roaming coverage throughout each floor and within the building boundaries.
8. Existing building materials such as steel, stone/brick will be taken into consideration when placing WAPs.

Uniform Telecommunications Grounding System

9. A uniform telecommunications grounding and bonding system shall be provided in accordance with J-STD-607-A, Grounding and Bonding Requirements for Telecommunications in Commercial Buildings. This system shall be designed in conjunction with the electrical power grounding system, by the Electrical Engineer.

Pathways, Space And Media Identificat Ion

Appropriately marked (machine-generated) labels shall be provided at each end of all cables.

Labels having the appropriate cable designation shall be provided in the following locations for each cable:

- Workstation information outlet faceplate.
- Termination blocks and patch panels in the BDF, TR and PoE.

Cable designations shall be designed for easy identification of serving room and termination location.

Project Overview

This section produced by Shen Milsom & Wilke (SM&W) contains program and design guidelines information relating to the audiovisual needs of the Scarsdale Public Library (SPL) located in Scarsdale, NY. This report will serve as the basis of design throughout the project.

The recommendations presented in this report are based primarily on requirements identified during our meetings with SPL on June 4th 2015, as well as our experience in planning and designing similar facilities.

Purpose

This report is not a technical specification and does not provide details such as manufacturer or model number. The information supplied herein is at the conceptual design level of analysis, and will be combined with budget estimates, in order to facilitate decisions about audiovisual capabilities. These decisions will help finalize architectural and infrastructure decisions, as well as validate current assumptions about cost planning.

For readers unfamiliar with SM&W, we are “pure” consultants, providing systems design and the related architectural expertise to the project team. We do not furnish equipment in any manner, and therefore have no vested interest in the amount of equipment that will eventually be purchased. Our only objective is to meet the client’s needs and ensure a sensible, competent approach to audiovisual planning.

Concept

SM&W will work closely with Dattner Architects (DA) to ensure the audiovisual systems for SPL will be properly integrated into the architectural design. Wherever possible, devices will be mounted in ways where they are recessed or flush with architectural or furniture finishes. The goal is to have the integration of technology systems appear to be purposefully thought out, and not overly apparent. Sightline studies will be performed to ensure sizes of visual displays meet the requirements for both textual and graphic content viewing.

The overall quality of the audiovisual systems planned for SPL, and recommended in this report is considered to be of mid to high-level in terms of systems sophistication and capability. If budget becomes an issue, then the goal for SPL will be to maintain a high level of systems functionality but dial back some of the quality of those systems to reduce equipment costs.

Budgets

The budget estimates provided in this report are intended to be a rough order of magnitude cost of the installed audiovisual systems for the building. These cost estimates are based on manufacturer’s suggested retail prices (MSRP), not street or wholesale prices, and they include a factor for the integration costs to procure, install and configure the systems. The labor factor included is based on local labor integration rates in New York. These estimates do not include extended equipment warranties, possible freight charges, sales tax, and other potential duties. The audiovisual system cost estimates also do not include the projected costs for electrical, mechanical, architectural or IT infrastructure required to support the planned audiovisual system. Items like conduit, power receptacles, millwork cabinetry, furniture, network cabling, etc. are not included in the audiovisual budget, and should be accounted for elsewhere.

We have included a range of costs for each system. This range provides an estimate of what the systems are projected to cost, and a variable which accounts for potential adjustments to the quality of those systems, quantities of those systems, and overall sophistication of those systems.

It should be noted that additional contingency factors have not been applied to the budgetary figures in this report.

Process

For those who are unfamiliar with the process, the next steps should follow the issue of this Report:

- SPL should review this report and subsequently meet with SM&W to discuss our recommendations.
- Dattner Architects (DA) will proceed to finalize room sizes and shapes with input from SM&W.
- SM&W will design the required infrastructure to support the audiovisual and multimedia systems.
- SM&W will coordinate the various infrastructure issues with SPL and the Design Team.

- SM&W will design the required audiovisual and multimedia systems and develop a specification or specifications for competitive bid by system integrators. These design documents will be reviewed and commented upon by SPL and the Design Team prior to distribution.
- Bid packages will be submitted and reviewed for award recommendation by SM&W.
- The contract will be awarded, and the equipment installed by the integrator. All systems shall then be tested for acceptance by SM&W.

Definition of Terms

Infrastructure vs. Equipment

It is important to make the distinction between providing infrastructure and purchasing equipment. If proper infrastructure provisions have been made, equipment can be added later as funds become available without jeopardizing the integrity of the overall audiovisual systems design.

1. **Infrastructure** can be thought of as part of the overall building design. What can be assumed is that at some point in the future, the wiring installed on day one will be replaced by something else. Pathways that afford the maximum flexibility for this wiring will pay large returns in the long run.
2. **Equipment** refers to particular devices that are connected by the infrastructure. Equipment can be thought of as furniture, various choices can be made about its quality and quantity. Equipment can be swapped out as it becomes obsolete given proper infrastructure design.

Infrastructure must be planned and included for initial occupancy, whether the audiovisual equipment is purchased or not. Some equipment can be purchased for initial occupancy, while other equipment purchases can be deferred. The most comprehensive infrastructure should be furnished to allow flexibility in the future. This requirement is the backbone of the design recommendations that follow. Decisions about the actual equipment that will be purchased can be deferred until approximately nine months to a year prior to actual occupancy and move-in.

We suggest that SPL review the information presented on two separate but related levels, the general intent to provide infrastructure that will support audiovisual capabilities, and the specific level of initial equipment purchase or fit-up.

When we refer to the “Design Team”, we are including:

- The Architect of Record.
- The Electrical Engineer.
- The Voice/Data Engineer.
- The Lighting Consultant.
- The Acoustical Consultant.
- The Owner’s designated representative to the Design Team
- Any other Consultants/Engineers that are participating in the master planning, design and construction of the facility, specific areas of the facility and surrounding property development.

Capabilities Categories

In describing audiovisual capabilities, it is useful to identify several key system categories as follows

- **Display Systems** typically includes data/video projectors, as well as other display technologies. Other display technologies include both plasma and LCD monitors; for the purpose of this document, they will be referred to generically as flat-panel displays (FPD’s).
- **Video Systems** includes source material, switching, routing and any video processing equipment required.
- **Audio Systems** includes source material, speaker systems, switching, routing and any audio processing equipment required.
- **Control Systems** includes all third-party integration devices and the user interfaces.

- **Miscellaneous Equipment and Systems** includes any equipment required that is not included in the previous categories. This includes equipment racks, local power conditioning, wiring, etc.
- **Base Building Systems** includes any devices that will not be provided by the audiovisual contractor, such as projection screens and floor boxes, which are installed by the base building Electrical Contractor and/or the Construction Manager.
- **Non-Audiovisual Systems** includes any considerations not provided by the audiovisual contractor that may have an impact on the performance of the audiovisual systems, i.e. lighting, lighting control, millwork considerations, etc.

Equipment Installation Designations

We refer to the equipment as having one of the following installation designations: dedicated, portable or future provisions.

- **Dedicated** indicates that the equipment will likely be used frequently and is permanently dedicated or installed in a specific room. Items with this designation appear in the budget of that space.
- **Portable** indicates that the equipment is needed less frequently and can be shared with other meeting rooms and stored in a central Equipment Pool. Only a few items with this designation appear in the budget.
- **Future Provisions** indicates that the capability may not be required initially, but infrastructure and systems design provisions should be made to adapt to equipment at some time in the future. Items with this designation do not appear in the budget, as we do not anticipate their immediate purchase.

Roles of the Three Contractors

Typically there are three types of contractors that have a role in the completion of the audiovisual portion of a project: the General Contractor, the Electrical Contractor and the Audiovisual Contractor.

- **The General Contractor** provides all required structural work, wall openings, platforms, railings, stairs, fire prevention, safety devices, rough and finished trim, painting, plastering, patching, carpets, floor covering, front and rear projection screens, acoustical treatment, heating, ventilating and air-conditioning. The General Contractor builds from documentation produced by the architect.
- **The Electrical Contractor** provides all conduits, wireways and permanently installed junction boxes and devices in floors, walls, and ceilings; power wiring and breaker panels. Typically, the Electrical Contractor also provides wiring of electrical projection screens, and room lighting fixtures and controls. The Electrical Contractor builds from documentation produced by the Architect/Electrical Engineer.
- **The Audiovisual Contractor** provides a turnkey audiovisual system to the Owner. They acquire and furnish all new audiovisual equipment, material and cables to ensure the installation of a complete and operating system. They provide, or sub-contract, on-site installation and wiring required for the audiovisual system and systems documentation manuals for the owner. The Audiovisual Contractor puts together systems from documentation produced by the Audiovisual Consultant.

General Notes

In order not be repetitive throughout the course of this document, the following may not be enumerated in each section.

Recommended Equipment

The equipment shown in subsequent sections are an outline of what is programmatically required in order for the rooms to function as desired. These are not intended as equipment lists or specifications, as other ancillary equipment will be required in order to make a complete and operating system.

Audio Systems

Assistive Listening Systems (ALS) are required by the Americans with Disabilities Act (ADA) for spaces that meet specific criteria. SM&W recommends:

- The Design Team reviews the spaces and determines in which spaces an ALS is required.
- The Owner review in which spaces an ALS should be installed, whether required by code or not.

- If there are spaces where an ALS may not be required on a permanent basis, infrastructure should be provided that will allow the use of a portable ALS.
- The ALS receivers can be considered as Shared Resources, as they can be used in any space that is equipped with transmitters.

Digital Signal Processing-based Audio System

- Systems using Digital Signal Processing (DSP) create software versions hardware processing devices, such as equalizers of various types, compressors, limiters, volume controls, etc. as required, without a cost associated with each device.
- DSP systems have internal mixing and matrix routing, to manage sources.
- DSP systems are configurable, with base configurations stored and recallable. This is of particular use in multi-use spaces that are routinely set-up in different configurations.
- Program set-ups can be stored off-line, so that if a configuration gets corrupted, restoration is a simple process.

Life Safety Interfaces

The Background Music (BGM) system is not designed to meet the standards required by the NFPA for an emergency evacuation system. An interface between the (BGM) and the Life-Safety (LS) system is required to mute the sound in case of an event. The specifics of how this is accomplished (system mute versus equipment shutdown; software solution versus hardware solution) will be determined by the Authority Having Jurisdiction.

Control Systems

Overall control of audiovisual systems should be accomplished by means of a programmable control system. The main interface between the users and the audiovisual systems would typically be via a configurable touch panel with multi-level access and functions. Using a control system should be as simple and intuitive as using an ATM machine. Icons are often employed to prevent language from being a barrier to effective usage.

The inclusion of local control systems provides the following advantages:

- Integrated control for all dedicated equipment within a space is centralized. All similar components will operate in a consistent manner, minimizing the learning curve for novice users and technical support required from administrative personnel.
- Configurable touch panel, with multi-level access and functions, allows a novice user to operate a system, without access to functions that might be operationally detrimental.
- Centralized operation of all related devices, such as lights and window shades, with the proper interfaces.

Non-Audiovisual Considerations

The following considerations are not strictly audiovisual considerations, but items that can affect the performance of the audiovisual systems. Careful coordination and planning on these items can greatly enhance the performance of the audiovisual systems.

Lighting Systems

- For spaces using FPD's, it is important that the lighting system be zoned in such a way as to allow the front of the room to be zoned independently from the rest of the room. While FPD's are relatively unaffected by ambient light, glare can be an issue.
- For spaces using projection systems, it is important to understand that keeping light off the projection surface is of much greater importance than general ambient light in the space. While most video projectors in use today have extremely high light outputs, the one thing that projectors cannot project is black, or the absence of light. Keeping the light off the projection screen is the only way to maintain good contrast.
- It is recommended that, for optimal viewing, the lights be zoned for independent control, with several presets that will allow the lighting to be optimized for the various functions.

Multi-discipline floor or wall boxes, providing an integrated location for power, voice/data and audiovisual connectivity.

- These floor or wall box are typically provided and installed by the Electrical Contractor.
- The Electrical Contractor also provides the high-voltage.
- The Telecommunications Contractor provides the voice/data connectivity and wiring devices.
- The Audiovisual Contractor provides audiovisual-specific connectivity and devices.

Projection Screens

- Projection screens are typically provided and installed by the General Contractor.
- The Electrical Contractor provides the low-voltage interface, for connectivity to control systems.
- The Audiovisual Contractor provides final coordination, and assists with the final adjustments.

Architectural and Millwork Coordination

There are audiovisual items that will be installed visibly, and in the millwork of rooms. Careful coordination will be required to integrate these elements into the room.

- Wall-mounted devices need to be coordinated with the interior elevations to provide the best system performance without detriment to the room aesthetics.
- Devices mounted in credenzas need to be coordinated with regard to equipment clearances and heat evacuation.

Space and Environmental Coordination

- In order to support the requirements of the equipment, space should be allocated for local equipment.
- Electrical power requirements (quantity and type) and HVAC requirements for equipment need to be coordinated with the Design Team.

SM&W will be assisting the Design Team with these issues throughout the duration of the project.

Overall List of Audiovisual Spaces

Room Name	QTY
Scott Room (Meeting Room 1 & 2)	1
Divisible Meeting Room (Meeting Room 3 & 4)	1
Children's Program Room	1
Young Adult	1
Lobby & General Collection Area	1
Technology Room	1
Study Rooms	3
Large Study Room	1

Scott Room (Meeting Room 1 & 2)

The Scott Room is a large multi-purpose space with a moveable partition that can be used as either one large space (combined mode) or two separate smaller spaces (divisible mode). When divided, the spaces will operate as two independent spaces with identical functionality. There will be multiple wall plates & floor boxes to allow for the furniture to be reconfigured as necessary to accommodate any one of the use cases listed below.

Uses of space to include:

- Meetings
- Presentations
- Educational Classes with distance learning capability
- "Town Hall" Gatherings
- Movie Screenings (combined mode only)
- Live Music Performance (combined mode only)
 - Potential styles of music include, but are not limited to: Opera, Jazz, Classical

One large, ceiling mounted, motorized projection screen on the west wall will be the main focal point for video content when the room is operated in "combined" mode during any of the use case scenarios. A high brightness, high-definition, ceiling mounted projector will be located in the AV Rack Room on the east side of the space. A glass port will be provided in the wall for the projector to shoot through. Note that when the room is divided by the moveable partition, the large projection screen on the west wall cannot be used.

Two smaller, ceiling mounted, motorized projection screens on the north wall will be the focal points for video content when the room is operated in "divisible" mode. Two high brightness, high-definition, ceiling mounted projectors will be mounted in each of the divisible spaces. If desired, all three projection screens in the space can be used when the room is operated in "combined" mode.

Recessed ceiling speakers divided into separate zones will be used for program audio, and in conjunction with digital wireless table top microphones for audio & video conferencing.

One wall mounted video camera per space (total of two) will be used for software based video conferencing such as skype or similar. Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway.

Hard wired connection points, inclusive of a lectern, will also be provided to allow users to connect a laptop using HDMI or VGA. To minimize cable clutter, we recommend using floor plates for these hard wired connection points. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

The space will also have two unique capabilities that can only be used when the room is operated in "combined" mode. The first of the two, movie screenings, will utilize the large projection screen on the west wall to play high-definition (1080p) movies fed from either a blu-ray player (which can also play standard definition DVD's), a dedicated streaming appliance such as an AppleTV, or a PC running software to play movie files. Dedicated surround sound speakers consisting of a front left, front right, center, rear left, rear right & a floor standing subwoofer, will be used for audio during movie screenings. This use case scenario is only applicable during movie screenings due to the specific location requirements of the surround speakers.

The second unique capability will be live music performance which also can only be used when the room is in combined mode. Dedicated high performance speakers (which could potentially be the same as the surround sound speakers) will be used for sound reinforcement during performances as appropriate to support certain styles of music. A collection of microphones will be used to mic up the various types of instruments and vocal performers. Small audio monitors will be located at the stage for performer use.

A multi-channel digital audio stage box will be provided at the stage location to connect all of the various microphones & audio monitors. The stage box will be connected to either a wall or floor box and connect to both the AV system & a small mixing console using a digital audio protocol such as Dante. Two digital wireless handheld microphones will also be provided for use by the vocalist.

A small mixing console will be used at the rear of the space to allow for a staff member to mix the sound of the performance. Select floor boxes and wall plates will also support the mixing console to eliminate any cabling being draped across the floor. This use case scenario is only applicable during “combined” mode due to the specific location requirements of the surround speakers.

Each space will have a dedicated, wall mounted, touch screen control panel to control the various functions of the space. When combined, the panels will be identical and mirror functions that are initiated. When the partition is used to divide the space, a sensor will automatically update, become only relevant to the space they are located within and will operate completely independently of each other.

An iPad running a special control application (available from the Apple app store) will be used to control the space wirelessly when the room is being operated in “combined” mode. The Graphical User Interface (GUI) will mirror the wall mounted control panels to provide a seamless control experience.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large projection screen for use when room is in combined mode.
- (1) Ceiling pole mounted, high brightness, High Definition (HD) projector located in AV closet with a glass port for use with large projection screen.
- (2) Smaller projection screens for use when room is in divisible mode.
- (2) Ceiling pole mounted, high brightness, HD projectors located within the space for use with the smaller screens.

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio
- Wireless video connection gateway such as an AppleTV (or similar)
- Software based Video Teleconferencing (VTC) such as Skype, Jabber, Lync, etc.
- (2) Wall mounted video cameras for use with VTC & distance learning
- Blu-ray player for HD video playback
- Dedicated local PC (OFE)

Audio

- Audio Teleconferencing (ATC) capability
- Recessed ceiling speakers divided into (2) zones to be used for VTC, ATC and program audio.
- Infrared based Assistive Listening System (ALS)
- Wireless microphones (table top & hand held)
- Lectern with wired microphone for use in town hall type meetings
- Multiple wall mounted speakers and subwoofer for use during movie screenings & live performances
- Subwoofer location to be coordinated
- Audio Digital Signal Processor (DSP) with surround sound capability
- Small digital mixing console with remote stage box for use during live performances

Control

- (2) Wall mounted touch screen control panels (one per space)
- (1) iPad for wireless control of space

Misc

- Floor boxes to support multiple furniture configurations
- Centralized AV equipment racks located within AV closet to support multiple spaces within facility

Divisible Room (Meeting Room 3 & 4)

The Divisible Room is a large meeting space with a moveable partition that can be used as either one large space (combined mode) or two separate smaller spaces (divisible mode). When divided, the spaces will operate as two independent spaces with identical functionality. There will be multiple wall plates & floor boxes to allow for the furniture to be reconfigured as necessary to accommodate any one of the use cases listed below.

Uses of space to include:

- Meetings
- Presentations
- Educational Classes with distance learning capability

One large, ceiling mounted, motorized projection screen on the west wall will be the main focal point for video content when the room is operated in “combined” mode during any of the use case scenarios. A high brightness, high-definition, ceiling mounted projector will be located within one of the meeting rooms, exact location to be determined during design phase. Note that when the room is divided by the moveable partition, the large projection screen on the west wall may not be able to be used.

Two smaller, ceiling mounted, motorized projection screens on the north wall will be the focal points for video content when the room is operated in “divisible” mode. Two high brightness, high-definition, ceiling mounted projectors will be mounted in each of the divisible spaces. If desired, all three projection screens in the space can be used when the room is operated in “combined” mode.

Recessed ceiling speakers divided into separate zones will be used for program audio, and in conjunction with digital wireless table top microphones for audio & video conferencing.

One wall mounted video camera per space (total of two) will be used for software based video conferencing such as skype or similar. Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway.

Hard wired connection points, will also be provided to allow users to connect a laptop using HDMI or VGA. To minimize cable clutter, we recommend using floor plates for these hard wired connection points. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

Each space will have a dedicated, wall mounted, touch screen control panel to control the various functions of the space. When combined, the panels will be identical and mirror functions that are initiated. When the partition is used to divide the space, a sensor will automatically update, become only relevant to the space they are located within and will operate completely independently of each other.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large projection screen for use when room is in combined mode.
- (1) Ceiling pole mounted, high brightness, High Definition (HD) projector located in AV closet with a glass port for use with large projection screen.
- (2) Smaller projection screens for use when room is in divisible mode.
- (2) Ceiling pole mounted, high brightness, HD projectors located within the space for use with the smaller screens.

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio
- Wireless video connection gateway such as an AppleTV (or similar)
- Software based Video Teleconferencing (VTC) such as Skype, Jabber, Lync, etc.

- (2) Wall mounted video cameras for use with VTC & distance learning
- Dedicated local PC (OFE)

Audio

- Audio Teleconferencing (ATC) capability
- Recessed ceiling speakers divided into (2) zones to be used for VTC, ATC and program audio.
- Infrared based Assistive Listening System (ALS)
- Wireless microphones (table top & hand held)

Control

- (2) Wall mounted touch screen control panels (one per space)

Misc

- Floor boxes to support multiple furniture configurations
- AV equipment racks located within AV closet on south side of room

Children's Program Room

The Children's Program Room is a learning space that will be used for the formal & informal education of young children.

Uses of space to include:

- Educational Classes
- Movie Screenings

One large, wall mounted, flat panel display on the north wall will be the main focal point for video content during any of the use case scenarios. The display will have 32 point touch screen capability to allow for interactive use when paired with a PC.

Recessed ceiling speakers & flat panel attached speakers will be used for program audio. The space will also have the capability for movie screenings to play high-definition (1080p) movies fed from either a blu-ray player (which can also play standard definition DVD's), a dedicated streaming appliance such as an AppleTV, or a PC running software to play movie files. Dedicated surround sound speakers consisting of a front left, front right, center, rear left, rear right & a floor standing subwoofer, will be used for audio during movie screenings.

Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway.

Hard wired connection points will also be provided to allow users to connect a laptop using HDMI or VGA. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large wall mounted interactive HD flat panel display

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio

- Wireless video connection gateway such as an AppleTV (or similar)
- Dedicated local PC (OFE)
- PC Required to support touch screen display
- Required software for interactive features to be provided by the Owner

Audio

- Recessed ceiling speakers to be used for program audio
- Flat panel attached speakers for use with interactive software
- Multiple wall mounted speakers and subwoofer for use during movie screenings
- Audio Digital Signal Processor (DSP) with surround sound capability

Control

- Wall mounted push button control panel

Misc

- Small AV equipment rack to support space, can be located within millwork (credenza, etc.)

Young Adult

The Young Adult room is a learning space that will be used for the formal & informal education of young adults.

Uses of space to include:

- Educational Classes
- Movie Screenings

One large, wall mounted, flat panel display on the south wall will be the main focal point for video content during any of the use case scenarios. The display will have 32 point touch screen capability to allow for interactive use when paired with a PC.

Recessed ceiling speakers & flat panel attached speakers will be used for program audio. The space will also have the capability for movie screenings to play high-definition (1080p) movies fed from either a blu-ray player (which can also play standard definition DVD's), a dedicated streaming appliance such as an AppleTV, or a PC running software to play movie files. Dedicated surround sound speakers consisting of a front left, front right, center, rear left, rear right & a floor standing subwoofer, will be used for audio during movie screenings.

Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway.

Hard wired connection points will also be provided to allow users to connect a laptop using HDMI or VGA. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space. Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large wall mounted interactive HD flat panel display

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio

- Wireless video connection gateway such as an AppleTV (or similar)
- Dedicated local PC (OFE)
- PC Required to support touch screen display
- Required software for interactive features to be provided by the Owner

Audio

- Recessed ceiling speakers to be used for program audio
- Flat panel attached speakers for use with interactive software
- Multiple wall mounted speakers and subwoofer for use during movie screenings
- Audio Digital Signal Processor (DSP) with surround sound capability

Control

- Wall mounted push button control panel

Misc

- Small AV equipment rack to support space, can be located within millwork (credenza, etc.)

Lobby & General Collection Area

The Lobby is the main entry to the building and will be where the public will get their first impressions of the facility. A large interactive display running software (provided by others) will allow patrons to navigate the book selection of the Library and see what is available.

Additionally, displays will be placed throughout the General Collection Area to be used as digital signage to highlight events that may be coming up, or to show any content the Library desires.

Since this is the main Library area, there will be no audio associated with any of these displays. Two or more owner furnished PC's will be used to support all of the displays within the area.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space. The control panel will also provide scheduling features for all of the displays so that they turn on and off at dates/times determined by the Library.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large wall mounted interactive HD flat panel display located in Lobby
- HD displays placed throughout General Collection Area (exact number to be determined)

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Dedicated PC to support Lobby interactive display
 - PC Required to support touch screen display
 - Required software for interactive features to be provided by the Owner
- PC (s) to support General Collection Area displays

Audio

- No audio in these spaces

Control

- Wall mounted push button control panel

Misc

- Centralized AV equipment racks located within AV closet to support multiple spaces within facility

Technology Room

The Technology Room is a medium sized room with moveable furniture that will be used for a variety of different functions. Uses of space to include:

- Meetings
- Presentation
- Educational Classes

One large, wall mounted, flat panel display on the south wall will be the main focal point for video content during any of the use case scenarios. The display will have 32 point touch screen capability to allow for interactive use when paired with a PC.

Recessed ceiling speakers & flat panel attached speakers will be used for program audio.

Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway. Hard wired connection points will also be provided to allow users to connect a laptop using HDMI or VGA. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Large wall mounted interactive HD flat panel display

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio
- Wireless video connection gateway such as an AppleTV (or similar)
- Dedicated local PC (OFE)
 - PC Required to support touch screen display
 - Required software for interactive features to be provided by the Owner

Audio

- Recessed ceiling speakers to be used for program audio
- Flat panel attached speakers for use with interactive software

Control

- Wall mounted push button control panel

Misc

- Small AV equipment rack to support space, can be located within millwork (credenza, etc.)

Study Room

The Study Rooms are small rooms that seat about 4 to 6 people and can be used for either quiet study or small group collaboration. Uses of space to include:

- Study space
- Collaboration between students

One small, wall mounted, flat panel display will be the main focal point for video content during any of the use case scenarios. Flat panel attached speakers will be used for program audio.

Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway. A hard wired connection point will also be provided to allow users to connect a laptop using HDMI or VGA. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Small wall mounted HD flat panel display

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio
- Wireless video connection gateway such as an AppleTV (or similar)

Audio

- Flat panel attached speakers for program audio

Control

- Wall mounted push button control panel

Misc

- Small under table rack shelves or small millwork will be used to house AV related equipment.

Large Study Room

The Large Study Room is identical in function to the small study rooms, but are larger in size. The room seats about 8 to 10 people and can be used for either quiet study or group collaboration. Uses of space to include:

- Study space
- Collaboration between students

One medium sized, wall mounted, flat panel display will be the main focal point for video content during any of the use case scenarios. Flat panel attached speakers will be used for program audio.

Video sources such as laptops, tablets or mobile devices will be able to connect to the system wirelessly over Wi-fi using a wireless video gateway. A hard wired connection point will also be provided to allow users to connect a laptop using HDMI or VGA. Alternate connection types such as DisplayPort can also be supported, but this will increase the cost of each connection point.

A dedicated, wall mounted, push button control panel will be provided to control the various functions of the space.

Below is a breakdown of the individual components anticipated for this space:

Display

- (1) Medium wall mounted HD flat panel display

Video

- Audiovisual switching matrix to allow multiple forms of content to be routed and switched within the room
- Laptop connectivity including HDMI & VGA w/stereo audio
- Wireless video connection gateway such as an AppleTV (or similar)

Audio

- Flat panel attached speakers for program audio

Control

- Wall mounted push button control panel

Misc

- Small under table rack shelves or small millwork will be used to house AV related equipment.

Lighting Narrative [Domingo Gonzalez]

1. Objectives

The intent of these guidelines are to establish appropriate practices relevant for the Scarsdale Public Library. Lighting level and illuminance criteria recommendations and parameters for selection of appropriate technologies and techniques are described, consistent with the architectural objectives in place for this project. Lighting will be designed to address visual acuity, balanced by the diverse activities present in the library, ease of maintenance, and to be (above all) welcoming in its role as a community center.

The Library's mission statement acknowledges its need to adapt to changing uses in technology, centering on improvements to the visitor experience. With this in mind, recommendations for lighting include both short- and long-term strategies to form the basis for the criteria, technology and techniques presented in this manual. These can be summarized as follows:

1. Improve energy efficiency and maintainability of lighting elements while reducing visual clutter (standardizing on fewer luminaire sources and types)
2. Use lighting controls to balance the presence of natural lighting with electric lighting designed to facilitate reading, browsing and computing tasks
3. Ensure that the facility projects a welcoming aspect to further the Library's goals of expanded community awareness.

2. Basis of Design: Parameters for Appropriate Lighting Applicable Codes, Standards and References

Lighting must be designed in compliance with applicable building and energy codes, and in conformance with recommended illuminance and uniformity criteria. Reference publications support programmatic uses that may not be defined at the time of this document's publication.

2.1 Building and Energy Codes

Adhere to applicable requirements of the latest edition of the following codes and standards:

- Building Code of New York State: Minimum requirements for artificial lighting and emergency egress lighting requirements
- Existing Building Code of New York State
- Energy Conservation Construction Code of New York State (ECCC NYS 2014): Lighting control requirements, exterior and interior lighting power allowances and additional efficiency measures. Option to comply via prescriptive or performance (energy model) methodology; alternative compliance path via ASHRAE 90.1 as referenced. It should be noted that the State ECCC is comprised of four (4) separate documents; these are:
 - Title 19 NYCRR Part 1240, NY State-specific provisions for commercial buildings
 - 2012 IECC Commercial Provisions
 - ASHRAE 90.1-2010
 - 2014 Supplement to the IECC and ASHRAE 90.1
 - The design team will determine which compliance path to follow based on examination of building and systems parameters.
- New York State Executive Order 88: Applies to all non-historic public buildings under direct state oversight. Not applicable for the Library, but may be referenced in relevant documentation.
- New York State Healthy, Save and Energy Efficient Outdoor Lighting Act: Regulates to some degree site and roadway lighting, including the use of historic (and/or historic-reproduction) luminaires; permits lighting of "natural and cultural monuments, or flag lighting" with restrictions.
- NFPA 70: National Electric Code (NEC)

2.2 Strategies for Code Compliance: Interior Lighting

Requirements for lighting pertaining to new construction and existing building codes tend to be limited to minimum interior lighting levels for occupiable spaces and stairways, and emergency egress considerations. Compliance with energy code and sustainability directive requirements tends to be more difficult. The following steps, at a minimum, are recommended (references cited are from IECC-2012 with NYS ECCC-2014 language as applicable and/or ASHRAE 90.1-2010):

- Determine the applicable building type as referenced in ECC NYS -2014. "Library" = 1.18 Watts/SF (Building Area Method); the Space-by-Space method offers some degree of flexibility with regard to lighting power analyses as noted:
 - Card File and Cataloguing: 0.72 W/WF
 - Reading Area: 0.93 W/SF
 - Stacks: 1.71 W/SF
 - Other space types as defined by program use. The Architect, Lighting and Engineering professionals should determine early on in the DD process the designations for multi-use or un-programmed areas to maximize lighting power allowance possibilities.
- Determine the compliance method: via Code, prescriptive or performance (C407 Total Building Performance) or ASHRAE 90.1 11 Energy Cost Budget method. Prescriptive compliance via Code methodology imposes "Additional Efficiency Measures" (C406) that pertains to interior lighting. ASHRAE 90.1 does not include such measures. ASHRAE 90.1 is quite specific with regard to Additional Lighting Control Methods for certain areas; in Libraries, these would include:
 - Offices (Open and Private)
 - Conference, Meeting, Training and Lecture rooms
 - Lobbies, Corridors and other circulation.
- A licensed Design Professional must sign and seal the energy analysis.

2.3 Strategies for Code Compliance: Exterior Lighting

Currently Exterior Lighting upgrades (parking areas, walkways, site lighting) has been excluded from the scope.

The energy code places significant restrictions on exterior lighting by requiring automatic controls limiting lighting to dusk-to-dawn use, and for landscape and building façade lighting (the specific NYS provision [C405.2.4] should be consulted). Exterior building lighting power is likewise regulated under C405.6 (ASHRAE 90.1 9.4.3), unless the building or structure is subject to the historic exemption or is determined to be public park land. Open areas, parking areas, walkways and drives are exempt unless otherwise advised.

2.4 Sustainability: LEED

The project is currently exploring the possibility of LEED Certification achievement via LEED v3 2009 New Construction and Major Renovations. This rating system calls for benchmarking against the Energy Star Portfolio Manager (www.energystar.gov/benchmark) where applicable. Other v3 rating systems reference ASHRAE 90.1 / 2007 for the Optimize Energy Performance credit, targeting a maximum project wide LPD of 1.3 W/SF (building area method).

For the purposes of future energy modelling a general target of 1.04 W/SF, representing a 20% reduction under the code baseline, has been established by utilization of high efficacy and energy efficient lighting technologies (primarily T5 fluorescent and light-emitting diode [LED]) coupled with strategic daylight harvesting, occupancy- and time-of-day controls. Additional LEED credits applicable to lighting to be considered include:

- EAc1 Optimize Energy Efficiency Performance
- EAc2.1, 2.2 and 2.3 Existing Building Commissioning (for lighting control systems)
- MRc4 Sustainable Purchasing – Mercury Reduction in Lamps
- IEQc2.2 Controllability of Systems – Lighting
- IEQc2.4 Daylight and Views has bearing on lighting, but is primarily an Architectural achievement.

2.5 Applicable References

- Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- American National Standards Institute (ANSI)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- American Society for Testing and Materials (ASTM)
- Illuminating Engineering Society of North America (IESNA)
 - Lighting Handbook, 10th edition
 - RP-3-00 Educational Facilities Lighting
 - RP-4-13 Recommended Practice for Library Lighting
 - RP-1-04 Recommended Practice for Office Lighting
 - LEM-7-13 Lighting Controls for Energy Management
 - LM-79-08 Electrical and Photometric Measurements of Solid-State Lighting Products
 - LM-80-08 Measuring Lumen Maintenance of LED Light Sources
 - TM-21-11 Projecting Long Term Lumen Maintenance of LED Light Sources
- Institute of Electrical and Electronic Engineers (IEEE)
- National Electrical Manufacturers Association (NEMA)
- National Fire Protection Association (NFPA): NFPA 101 Life Safety Code as incorporated in NYS Building Codes; and 70E Standard for Electrical Safety in the Workplace
- Occupational Safety and Health Administration (OSHA)
- Underwriters Laboratories (UL): Establishes testing procedures for lighting equipment.

2.6 Illuminance and Uniformity Recommendations

Lighting level criteria and uniformity recommendations are for the most part drawn from the latest edition of the IESNA (Illuminating Engineering Society of North America) Recommendations (see chart Appendix A) and are made with the understanding that library visitors and staff expectations have perhaps increased since the library first opened, commensurate with changing expectations on the part of modern, urbanized human beings for increased visual stimulation. However; over the past decades progressive evolution of energy codes have also generally impacted light level recommendations in a downward direction. Current illuminance recommendations consider color temperature, color rendition to some degree as well, in acknowledgement of emerging science that suggests a correlation between color temperature and visual acuity.

All values are given in footcandles (FC) and uniformity provided as an average-to-minimum ratio. Light levels are to be delivered at the task surface (horizontal 30" AFF) unless otherwise noted. "Vert." refers to vertical readings, to be taken at face level for discernment of text within the stacks.

2.7 Luminaire Source and Type Evaluation

Luminaires should be selected based on these factors:

- Standard of durability for intended application.**
In general lighting equipment should be durable and suitable for long-term use (typically 30 years). See Light Sources below regarding procurement strategies. Any luminaires fully exposed to the elements must be UL (or equivalent) listed for wet locations, and should attain an IP rating of 65 (minimum). Exterior luminaires intended for use in sheltered applications (for example, beneath a canopy) must be UL listed for damp locations (at a minimum). If located within easy reach of the public, consider vandal-resistant luminaires.
- For interior (indoor) applications luminaires should be at minimum UL listed for damp locations (minimum IP 44). All recessed fixtures luminaires (downlights, wall washers, accent lights, and troffers) shall be UL listed for thru wiring.
- Compliant with ADAAG.
- Handrail lighting must comply with Americans with Disability Act Accessibility Guidelines for diameter. Wall-mounted luminaires at elevations below seven feet (7'-0") above finished grade must project no more than four inches (4").

- Appearance and Form Factor. Luminaires should be appropriate for their context. Specific recommendations for luminaires are given in 2.8.
- T5 Fluorescent:**
Linear T5 Fluorescent have since their introduction in 2001 offered significant advantages in terms of energy efficiency, lamp life, and initial/maintained cost when compared to other conventional sources (T8 and T12). Consideration of linear T5 fluorescent sources should at minimum be based on the following parameters:
 - Color Temperature 3000 o, 3500 o, or 4100o Kelvin
 - Lumens per watt: 100-104 LPW
 - Average Rated Life: 36,000 hours (10 hours per start)
 - Ballasts:
Electronic, 170 mA, dimmable (0-10 volt) 120/277 v option with a minimum 5 year warranty
- LED Light Sources.**
Solid-stage Light Emitting Diode (LED) sources are recommended for many applications. Depending upon initial price point, LED luminaires may be designed to accommodate replaceable components (modules, arrays and drivers); alternatively, the luminaire may be designed to be entirely replaceable. In either case, sufficient attic stock (as determined by SPL) must be specified. LED luminaires should be selected with these factors in mind:
 - 3000K, 3500K or 4000K (depending upon application) with a minimum CRI of 80, a minimum efficacy of 60 LPW and a minimum life of 60,000 hours at 70 percent of light output (L70), with a minimum five-year warranty for LED module and drivers.
 - Drivers must have a minimum 60,000 hour average rated life. LED array and driver to be field-replaceable by the user, or entire light engine (array, driver, heat sinking and optics) to be recyclable by the manufacturer, unless initial luminaire cost is sufficiently advantageous to permit complete luminaire replacement. All drivers should be dimmable (0-10 volt).

2.8 Luminaires:

- Surface mounted and pendant mounted direct/indirect luminaires should be tool less access dimmable and properly lensed to prevent incursion of dust and insects.
- All luminaires shall be fabricated from recycled aluminum, steel, plastic and glass material content to the greatest extent possible (minimum 70-70%)
- All recessed linear luminaires shall be provided with etched micro prism acrylic lenses (or equivalent) for maximum optical performance and minimization of lamp or source image.
- All recessed linear 6" wide lensed luminaires (T5) shall have a minimum total optical efficacy of 75%
- All recessed linear 12" wide lensed luminaires (T5) shall have a minimum total optical efficacy of 90%
- All pendant mounted direct/indirect (T5 Fluorescent) luminaires shall have a maximum total optical efficacy of 85-90%
- All recessed (point source) LED downlight, wall washers, and adjustable accent lights shall be provided with either remote phosphor or COB LED modules and low brightness specular clear atzak cones.
- All recessed linear and point sources luminaires shall be UL 1598 compliant and suitable for thru-wiring.

2.9 Controls:

A. Public Areas: (Reception Reading Galleries, Stairs, Main Collection Areas, Children's Area)

Allow for a centralized/ network intelligent automatic control system with the following features:

- Zone based 0-10 volt dimming preset control of all recessed and pendant mounted luminaires capable of receiving time clock and photocell commands with manual override.
- Astronomical time clock operation [24/7/365]
- Photocell override operation in select areas (Main Collection Area, Reading Gallery, Quiet Reading, Children's Area and Reading Room, etc.)
- Transfer of designated EM circuits to EM power supplies (via EM generator, UPS or Inverter)

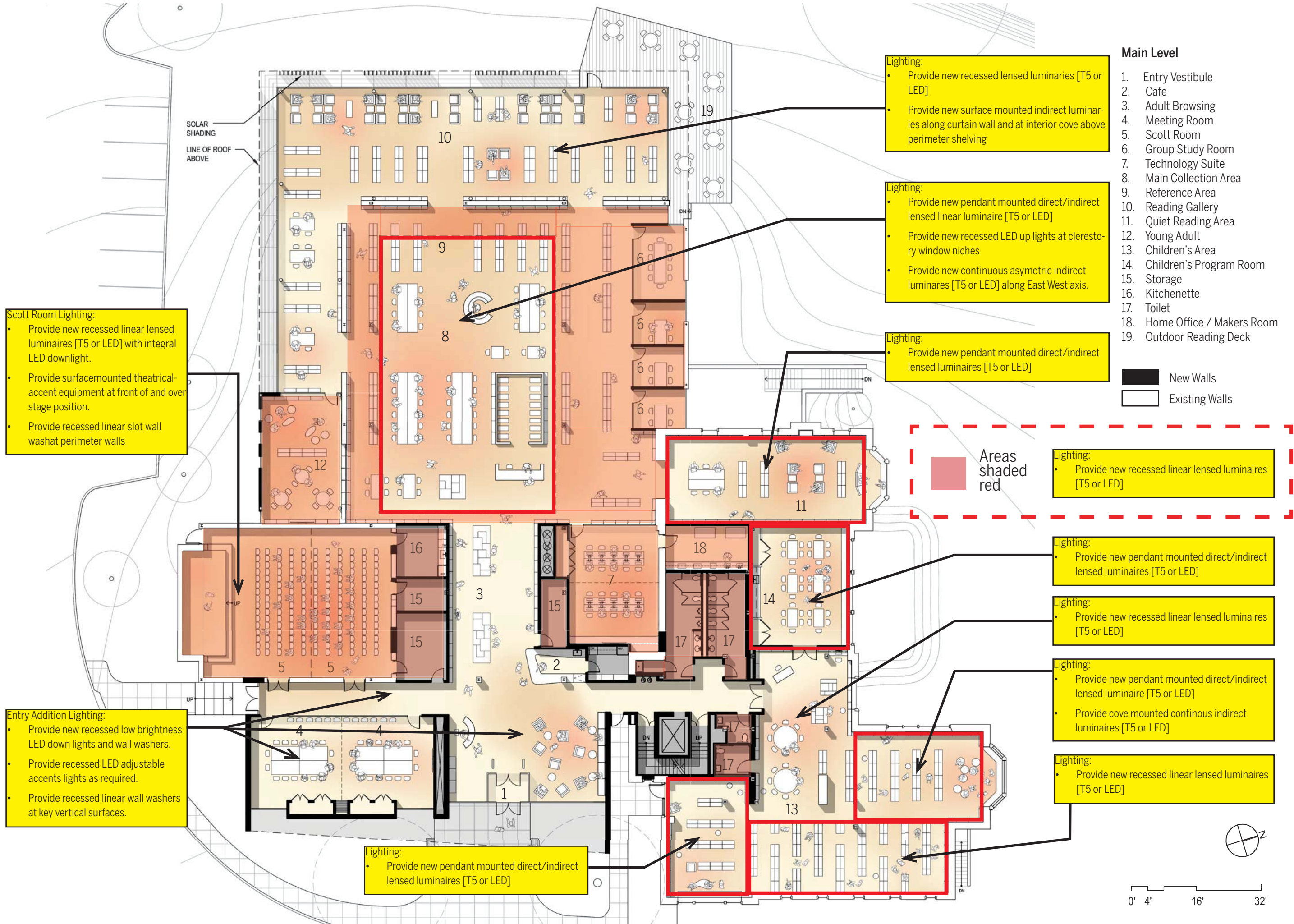
B. Offices / Group Study Rooms / Makers Room/ Young Adult Room

- Provide with combination occupancy sensor/ wall switch controls.

- All luminaires within 15' of windows or skylights to be provided with integral photocell for downlight dimming.
- C. Task Lighting:**
- Where utilizing furniture integrated task lighting [T5 fluorescent or LED] should be provided with both integral switch control and integral occupancy sensor.
- D. Storage Areas /Custodial Offices**
- Provide with combination occupancy sensor/ wall switch controls.
 - All luminaires within 15' of windows or skylights to be provided with integral photocell for downlight dimming.
- E. Toilets (Public) Multiuser**
- Provide with programmable astro time clock/ occupancy sensor activated controls.
During normal library hours (8AM – 9PM) the OS would dim lights after 30 minutes to 50% and then dim upwards to 100% when activated. After normal hours (9PM – 8AM) the OS would dim to “off” after 30 minutes.
- F. Toilets (Public) Single User:**
- Provide with combination occupancy sensor/ wall switch controls.
- 7. Mechanical Rooms**
- Provide new luminaires (1 to 1 basis replacement) with local time switch controls.
- 8. Scott Room**
- Provide with sub-divisible “take control” zone based dimming capability with occupancy sensor override.
 - Provide with multi-scene preset control for theatrical front of stage and over stage positions
- 9. Technology Suite / Meeting Rooms**
- Provide with sub-divisible take control zone based dimming capability with occupancy sensor override.

Schematic Budget Projections

Resources	Illuminance Criteria (Foot Candles)													
	Library				Auditorium (Meeting Rooms)	Offices	Entry	Toilets	Electrical Mechanical	Service Areas, Corridors and Stairway	Work Room	Young Adult	AV Rooms Study Rooms	Children's Room
	Reading Areas	Stack	Circulation Desk	Cataloging										
Design Criteria For MEPS Sys- tems For New York Public Library (1990's)	50	50	N/A	N/A	20	45	5	20	20	20	50	N/A	N/A	N/A
Brooklyn Public Libraries Design Guidelines (1996)	50-70	30 (horiz. @ bottom shelf)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BRANCH LIBRARIES of the New York Public Library Design Handbook Volume II (1997)	30-35	20 v (Active Stack) 10 v (Inactive Stack)	35-45	50	20	35-45	5	N/A	N/A	2	30-40	N/A	20-35	N/A
IES Lighting Handbook 9 th Edi- tion (2000)	30-50	30 (Active Stack) 5 (Inactive Stack)	30	30	5-10-30	30-50	3-10	10-15	30	10-200	30-50	5-10-30	30-50	5-10-30
DDC Design Manual (2005)	30-50	20-30 v	30-50	30	30-50	10	10	10-15	30	5-10	30-50		30-50	30
IESNA Lighting Handbook 10 th Edition (2010) & IESNA Rec- ommended Practice for Libraries RP 4-13	30	20	30	30	5-30	10	5-10	10	10-20	5-10	30-40	15-30	30	15-30
DGA Recommendations	30	10-20 v	20-30	20-30	5-30	30	5-10	10	10-20	5-10	30-40	15-30	30	15-30



Scott Room Lighting:

- Provide new recessed linear lensed luminaires [T5 or LED] with integral LED downlight.
- Provide surfacemounted theatrical-accent equipment at front of and over stage position.
- Provide recessed linear slot wall washat perimeter walls

Entry Addition Lighting:

- Provide new recessed low brightness LED down lights and wall washers.
- Provide recessed LED adjustable accents lights as required.
- Provide recessed linear wall washers at key vertical surfaces.

Lighting:

- Provide new pendant mounted direct/indirect lensed luminaires [T5 or LED]

Lighting:

- Provide new recessed lensed luminaires [T5 or LED]
- Provide new surface mounted indirect luminaires along curtain wall and at interior cove above perimeter shelving

Lighting:

- Provide new pendant mounted direct/indirect lensed linear luminaire [T5 or LED]
- Provide new recessed LED up lights at clerestory window niches
- Provide new continuous asymmetric indirect luminaires [T5 or LED] along East West axis.

Lighting:

- Provide new pendant mounted direct/indirect lensed luminaires [T5 or LED]

Areas shaded red

Lighting:

- Provide new recessed linear lensed luminaires [T5 or LED]

Lighting:

- Provide new pendant mounted direct/indirect lensed luminaires [T5 or LED]

Lighting:

- Provide new recessed linear lensed luminaires [T5 or LED]

Lighting:

- Provide new pendant mounted direct/indirect lensed luminaire [T5 or LED]
- Provide cove mounted continous indirect luminaires [T5 or LED]

Lighting:

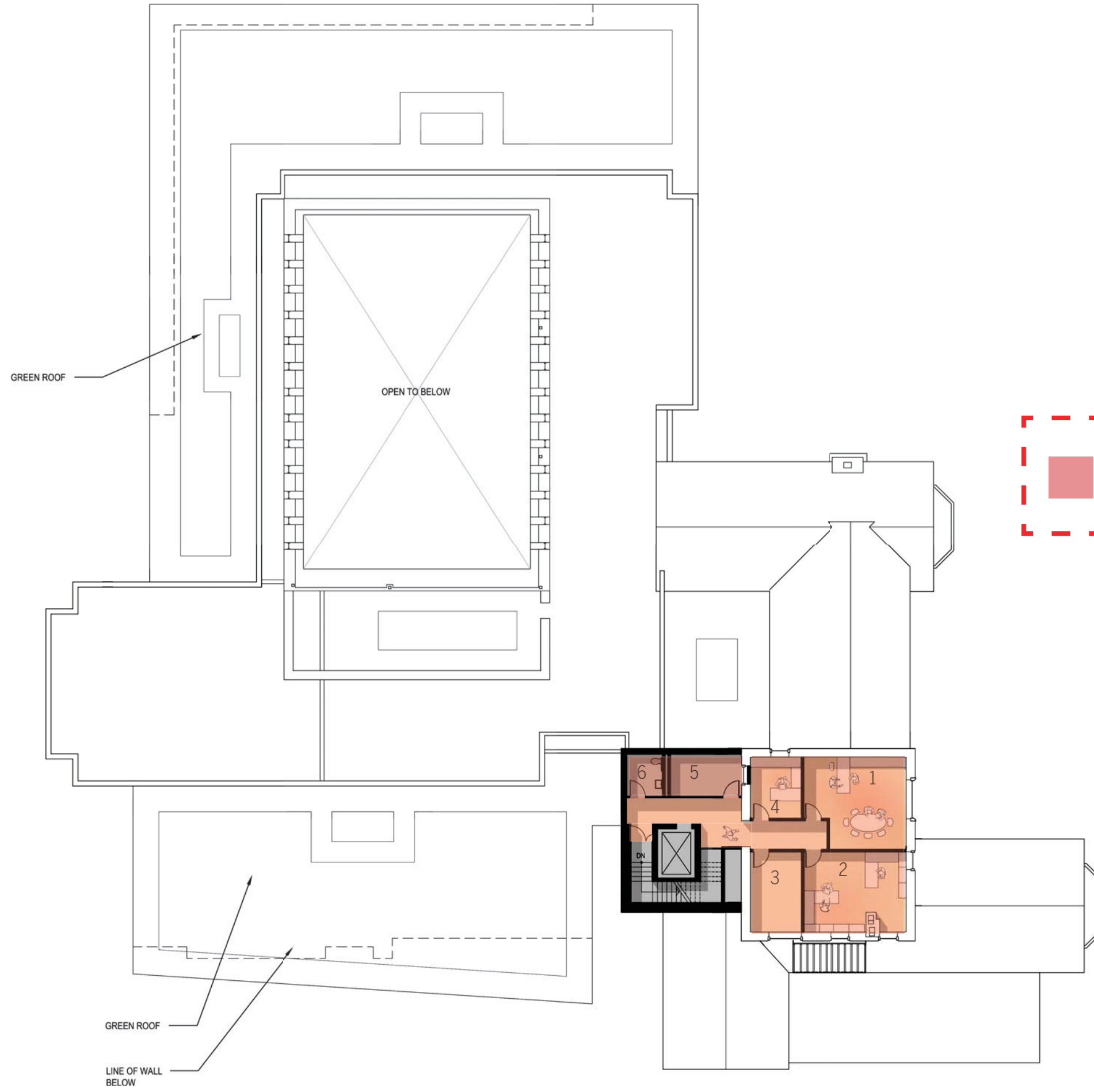
- Provide new recessed linear lensed luminaires [T5 or LED]

Main Level

1. Entry Vestibule
2. Cafe
3. Adult Browsing
4. Meeting Room
5. Scott Room
6. Group Study Room
7. Technology Suite
8. Main Collection Area
9. Reference Area
10. Reading Gallery
11. Quiet Reading Area
12. Young Adult
13. Children's Area
14. Children's Program Room
15. Storage
16. Kitchenette
17. Toilet
18. Home Office / Makers Room
19. Outdoor Reading Deck

■ New Walls
 □ Existing Walls

0' 4' 16' 32'



Upper Level

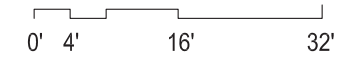
1. Library Director's Office
2. Business Office
3. Office
4. Executive Assistant's Office
5. Storage
6. Toilet

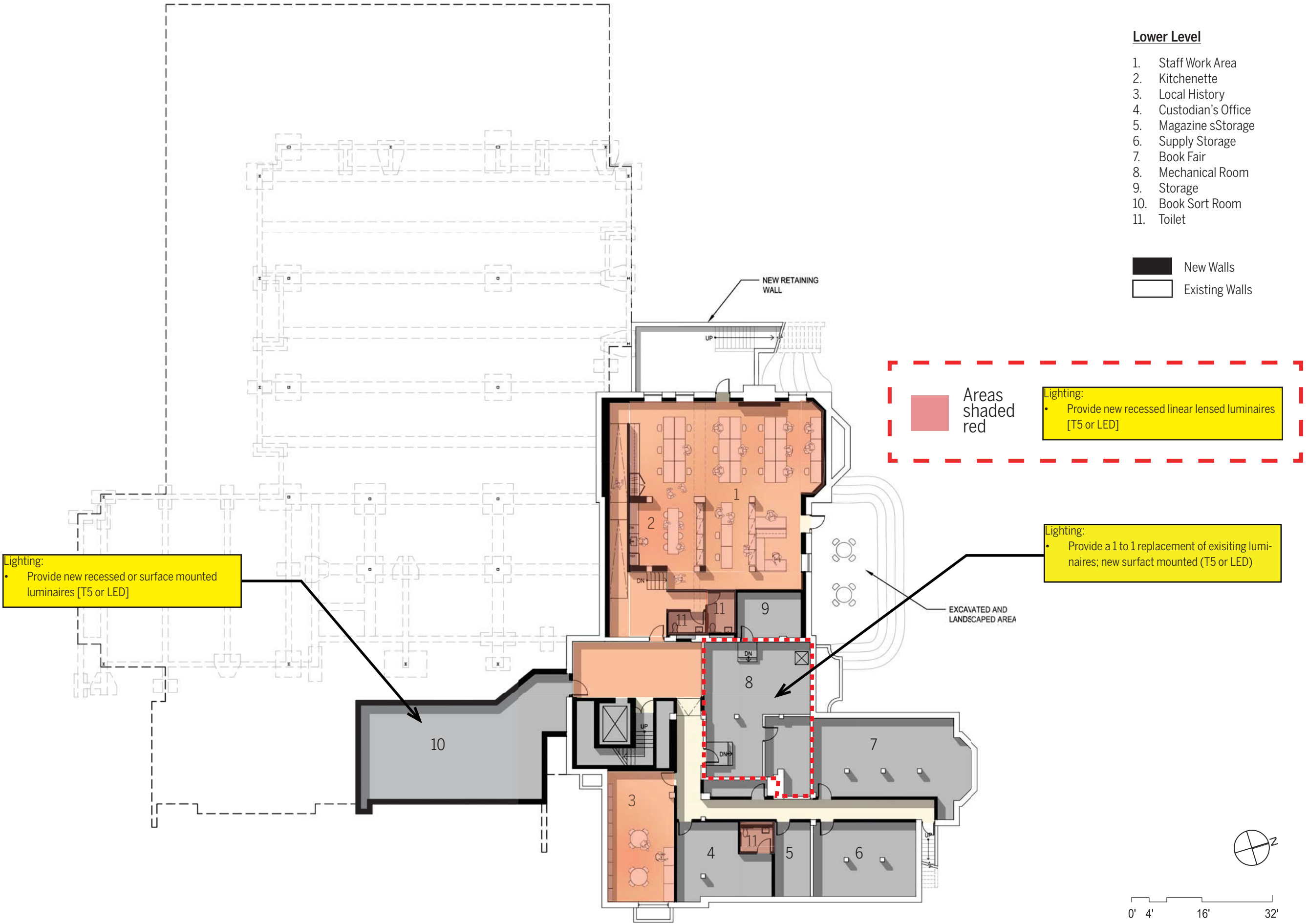
- New Walls
- Existing Walls

Areas shaded red

Lighting:

- Provide new recessed linear lensed luminaires [T5 or LED]





Roofing Narrative [Watsky Associates]

Specific Observations

Flat roof Areas A through G, are approximately 11,300 square feet in area, they are covered with an aluminum coated smooth surfaced modified bitumen roof installed over a poured gypsum deck. Roofing on these areas is in poor condition, they are not insulated and pond water.

Flat roof Areas H, N, and O, are approximately 1,140 square feet, are covered with a single ply EPDM roof that was installed approximately a year ago. These areas are in great condition.

Sloped Areas I through L comprise approximately 10,600 square feet in area, they are covered with black slate, probably quarried in Vermont. The slate on the original 1940's building (Areas I, J, and K) is as originally installed and approximately 75 years old. All slate is approximately 1/4 inch thick and random width. The slates are installed over two layers of felt underlayment over concrete planks, areas except for a portion of Area K (by the main entrance) where the slates are fastened to wood sleepers over a light weight concrete deck.

There is no insulation above the roof decks, and except for Area J there is no access to the attics under the slate roofs. We observed approximately four inches of fiberglass batt insulation in the attic under Area J.

The original slates are generally in fair condition, they were properly installed with the correct exposure and with joints in adjoining courses staggered. Unfortunately, the quality of slate repairs performed through the years has been inconsistent.

Areas I and K have exterior mounted copper gutters. The gutters are in very poor condition and incorrectly sloped (water lays in them and doesn't flow to the leaders). There are no drip edges on the roof edge behind the gutters to protect the eave, and there are no snow guards along the eaves. Sliding snow has damaged the gutters, and it poses a danger to those frequenting the library.

There is a small built in gutter at the perimeter of Area J. The original copper lining has been superficially covered with roofing cement. (Copper flashings and gutters cannot be properly repaired with roofing cement.)

Stone masonry chimneys on Areas I and J are in poor condition. There are cracks in the chimneys, the mortar joints are deteriorating and the chimneys need metal caps. There are also deteriorated mortar joints and cracks in the change in elevation stone masonry walls and limestone decorative bands above Areas I and K

Mansard roof Area L is also covered with black slates. They were installed when the addition was constructed in the 1970's. This slate roof is in good condition; no missing or broken slate was observed. This roof will function well for many years.

Sloped roof Area M is approximately 140 square feet, and covered with flat seam copper roofing. The flat seam copper roofing is in good condition.

Conclusions & Recommendations:

Flat roof Areas A through G are in poor condition, they are not insulated and pond water, they should be replaced at this time. New roof will consist of 60 mil thick reinforced PVC membrane, installed over a cover board and tapered insulation sloping 1/8 inch / foot, starting thickness 4-1/2 inches.

Flat roof Areas H, N, and O were recently reroofed, they are in great condition and should function well for many years.

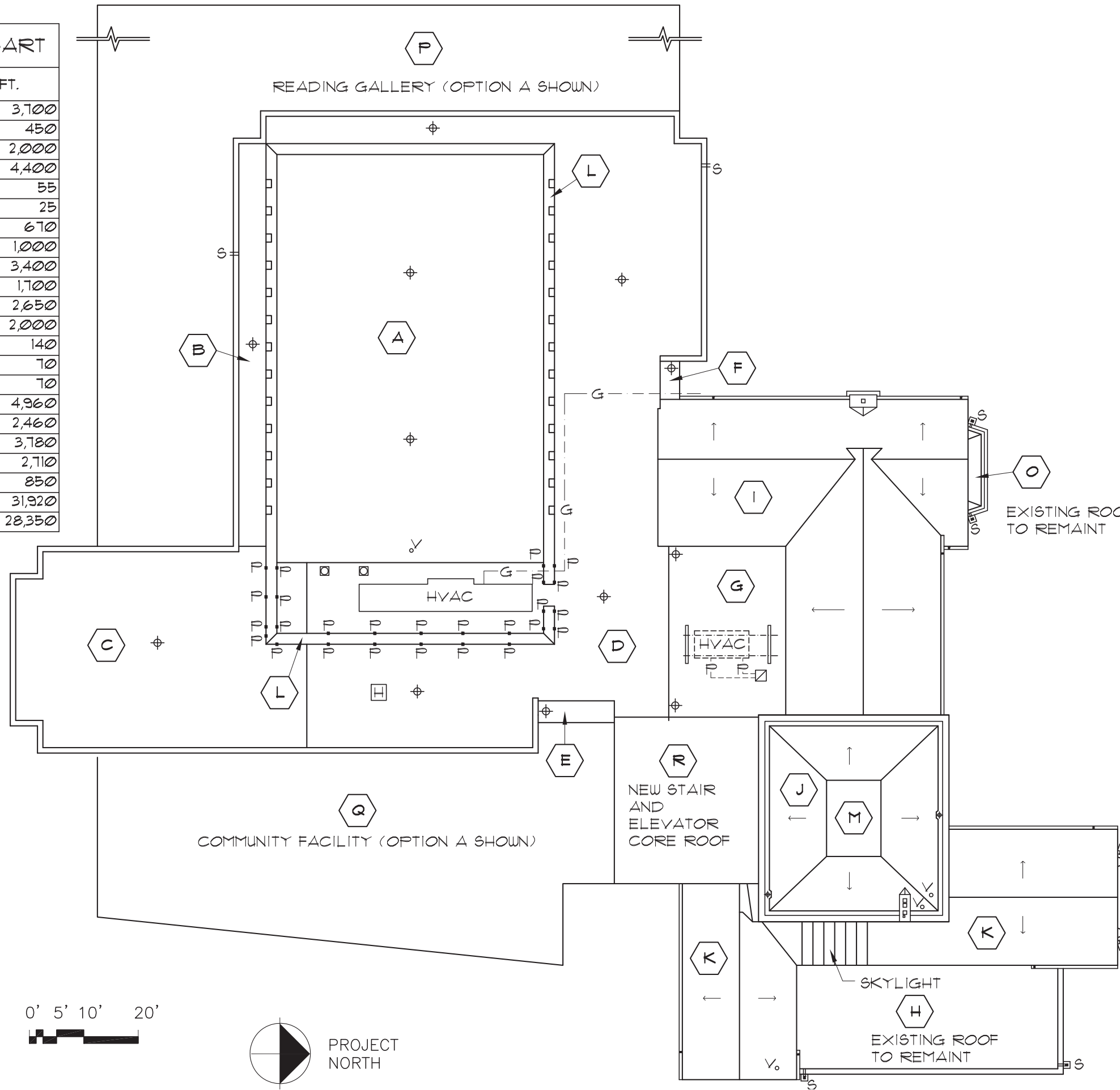
The slate roofing on area L is in very good condition and will function well for many years. Periodic inspections and repairs should be performed as needed to replace broken or missing slate.

Slate roofing on Areas I, J and K is in fair condition, recently performed slate repairs have stopped leaks. However, extensive work is needed to replace the gutters, valleys, step flashings and crickets, and to add snow guards along all the eaves, and masonry repairs are needed at the chimneys and change in elevation walls above these slate roofs. Considering the amount of existing slate that will be disturbed and damaged as this work occurs, and the lack of insulation, it would be prudent to replace these roofs at this time.

Copper roofing on area M is in good condition. However due to the size of this roof and the need to replace the slate roofing surrounding this roof it would be prudent to replace this roof at this time.

SQUARE FEET CHART

ROOF AREA	SQ. FT.
A	3,700
B	450
C	2,000
D	4,400
E	55
F	25
G	670
H	1,000
I	3,400
J	1,700
K	2,650
L	2,000
M	140
N	70
O	70
P (OPT. A)	4,960
P (OPT. B)	2,460
Q (OPT. A)	3,780
Q (OPT. B)	2,710
R	850
TOTAL (OPT. A)	31,920
TOTAL (OPT. B)	28,350



- LEGEND:**
- A ROOF AREA DESIGNATION
 - P• PITCH POCKET
 - CHIMNEY
 - °∇ VENT PIPE
 - ROOF HATCH
 - ⊕ ROOF DRAIN
 - G--- GAS PIPE
 - †_S SCUPPER
 - DECK SLOPE
 - EXHAUST FAN
 - DUNNAGE
 - HVAC UNIT
 - P--- PIPING
 - PIPE PENETRATION
 - GUTTER & LEADER
 - LEADER HEAD



LEED Feasibility Summary [YR&G]

Introduction

This document assesses the feasibility of, and process for, LEED for New Construction and Major Renovations (LEED-NC) v2009 certification of the Scarsdale Public Library.

In order to comply with all Minimum Program Requirements (MPRs) of the LEED-NC system, the building will need to be included in its entirety. Based on the existing mechanical system, there are some major hurdles to achieving two of the mandatory prerequisites:

- EAp2: Minimum Energy Performance – Demonstrate 5% whole-building energy cost improvement in modeled performance AND comply with mandatory provisions of ASHRAE 90.1-2007
- IEQp1: Minimum IAQ Performance – Demonstrate compliance with ASHRAE 62.1-2007 using the ventilation rate procedure

A description of the issues related to these two prerequisites is included on page 2. A more detailed description of all MPRs, prerequisites, and credits are provided in the attached LEED Scorecard. The scorecard presents the current status of each prerequisite and credit, along with specific project considerations, associated action items, and identification of the responsible team member for each. Credits that are readily obtainable within the current design or credits that are already anticipated are marked as “Yes” on the scorecard. Credits that require future decisions or those where there is currently insufficient data to confirm whether they are achievable, have been marked as either “High Probability” or “Low Probability,” respectively. “No” credits are those that are not applicable for this project or are otherwise not deemed appropriate to pursue.

If all LEED prerequisites can be achieved, the project appears to be on track to earn enough LEED points for certification. With further confirmation of the many high-probability credits (“low-hanging fruit”), the project has the potential to earn LEED Silver certification. If the project decides to pursue LEED Certification, the scorecard will be further refined as the project progresses and as proposed opportunities are either implemented or ruled out as not feasible.

Note that a new, more stringent version of the LEED Rating System (v4) has been launched and will ultimately replace the current v2009 version. Projects pursuing LEED can register under the current v2009 Rating Systems until October 31, 2016. The project registration fee is \$900 and there are no requirements for the project to be at a minimum design stage prior to registration. Projects that register under v2009 must complete construction and submit for certification through the Green Building Certification Institute before v2009 is superseded by the next more stringent version of LEED.

Key Challenges

EAp2: Minimum Energy Performance

For major renovations/existing buildings, this prerequisite requires a minimum 5% energy cost improvement in modeled performance as compared to an ASHRAE 90.1-2007 baseline, as well as compliance with mandatory provisions of that standard. To verify this required minimum improvement, the proposed design and renovation would need to be evaluated, along with detailed information on any existing envelope, lighting, and mechanical systems to be maintained, through a whole-building energy model using hourly energy simulation software. This model can also be used as a tool during design to inform strategies that reduce loads, implement cost-effective efficiency measures, and assess associated operational costs.

Maintaining existing mechanical equipment poses one of the primary challenges in meeting this prerequisite, as the current system appears to have a lower efficiency than the ASHRAE 90.1-2007 baseline. There is currently no extra capacity in base systems to accommodate the new additions. For this SD cost estimating effort, any new equipment capacity necessary to serve the renovated and new space is designed to be added and operate alongside existing equipment.

Proposed improvements to energy costs include:

- Replace existing roof insulation + new vegetated roofing (high insulation value)
- Higher insulating values on new walls and slabs
- New higher performing glazing on additions
- New additions will be served by rooftop air conditioning units (DX cooling and natural gas-fired heating) or even more efficient water source heat pumps which would utilize a closed well field as a year-round source of heating and cooling
- Pedestal hot water radiation on new south and west glass walls
- If the existing boiler has insufficient capacity then a new high efficiency boiler will be added
- Improvements to efficiency of the multizone unit
- New distribution ductwork in existing spaces with some variable air volume control and CO2 sensors
- New lighting fixtures with a target lighting power density reduction of at least 20% below ASHRAE 90.1-2007
- Daylighting and occupancy sensors tied to lighting controls

IEQp1: Minimum IAQ Performance

The intent of this prerequisite is to ensure minimum ventilation to enhance indoor air quality and associated comfort and well-being of the occupants by requiring compliance with ASHRAE 62.1-2007. Compliance of the existing areas will not be verified for schematic design and pricing. Based on the age and configuration of the existing mechanical system, it is unlikely that the existing ventilation system meets the required ventilation rates. Furthermore, until further study can be completed, it remains unclear whether additional equipment capacity and increasing outdoor air supply would be required to meet the minimum ventilation rates per ASHRAE 62.1-2007.

Therefore, achieving this prerequisite likely requires, at a minimum, replacement of the existing air distribution system. As part of the proposed maximum level of construction, K&L has studied the possible redirection of the existing rooftop multizone unit supply air to areas not currently served, while providing new sources of supply to existing areas now served by the multizone unit. It is possible that meeting the ASHRAE 62.1-2007 requirements would also require additional air handling capacity to serve the existing building areas. Further testing and analysis of the existing equipment and proposed program is necessary to verify the full scope of the level of effort required to meet this prerequisite.

Key Opportunites

If the project is not able to overcome the prerequisites given the challenges and cost associated with replacing existing equipment, there are still many worthy and applicable approaches to demonstrating leadership in responsible design and construction by reducing environmental impact and enhancing occupant health in the Scarsdale Public Library. The following is an initial list of key opportunities for this project. As the design progresses, we recommend that the project create their own customized list of goals borrowing applicable strategies from established standards and Rating Systems such as ASHRAE, LEED v2009 and v4, the Sustainable Sites Initiative, the WELL Building Standard for health and wellness, and the Living Building Challenge.

Site and Water:

- Ensure new landscaping is designed with native plantings that do not require any irrigation after establishment and are carefully selected to support existing habitat. Deciduous vegetation near the south and west facades can provide summer shading.
- Analyze the capacity of the vegetated roof, rain gardens, and wetlands to manage stormwater in terms of rate, quantity, and quality. Consider permeable or open grid pavers in the parking lot. With these low-impact development strategies and a large site area the project should be able to exceed the code requirements, aiming to replicate the natural hydrology and water balance of the site, based on historical conditions and undeveloped ecosystems in the region.
- Consider capturing and harvesting rainwater. Perform an analysis to compare the amount of potential rainwater from the roof with the demand from flush-fixtures, considering seasonal variation and necessary storage capacity. If rainwater cannot be reused in flush fixtures, consider alternate uses such as non-potable irrigation for an onsite food and flower garden. Above ground cisterns can be incorporated into the site design as a key educational element.
- Replace existing water fixtures with high-efficiency fixtures. A minimum improvement of 30% over code is easily achievable with standard flush and flow fixtures on the market.

Energy Use:

- Assess and improve energy performance in the existing building following the guidelines of the ASHRAE Level 1 Audit. This would likely involve:
 - Conduct a preliminary energy assessment comparing bills and metered energy use to actual operations including building schedule, interior conditions, and weather data to set a benchmark and determine primary drivers of energy consumption.
 - Review and improve systems operation including controls, sequences, and operations and maintenance documentation. Perform training and assemble/review O&M manual, as necessary.
 - Address air leaks and heat loss using tools such as a thermal gun, smoke test, and/or blower door test to guide air-sealing.
- Design new envelope, equipment, and systems to meet a high standard of efficiency. Identify an applicable standard such as the Advanced Buildings Core Performance Guide. Commission new systems and ensure O&M training and procedures are in place for successful transition into operation.

Health in Materials and Indoor Environmental Quality:

- Survey the range of new LEED v4 and WELL material health criteria to establish a specific goal for minimizing the use and generation of harmful substances in the selection of building materials and products. This may include low-emitting materials, prioritizing products that have published Health Product Declarations, and/or avoiding materials containing Red List ingredients.
- Reduce exposure to toxins during operation through green cleaning, integrated landscape, and integrated pest management policies.
- Consider air quality testing in accordance to LEED IEQc3.2 Option 2 or WELL.
- Ensure new and retrofitted systems are designed to meet, at a minimum, the ventilation standards of ASHRAE 62.1-2010.
- Ensure that new and retrofitted systems are designed to meet the thermal comfort standards of ASHRAE 55-2010.
- Consider designing to WELL standards for ergonomics and acoustics.
- Maximize daylight, control for glare, and design electric lighting with close attention to contrast, glare, and controllability based on the specific task needs of each space.
- Perform a pre- and post-construction occupancy comfort survey.

Education:

- As a public building dedicated to community education, this project presents the exciting opportunity for the building itself to serve as a living laboratory that informs patrons about energy and water efficiency, indoor air quality, connection to the outdoors, and can motivate the community to get involved in activities that promote sustainability and environmental awareness. This can take many forms and would ideally have a direct tie to the building's sustainability features. Initial ideas include:
- A 'truth wall' revealing the layers that contribute to a good thermal building envelope, perhaps one in the old section of the building and one in the new addition to illustrate how technology and design has evolved over time.
- An interactive monitor displaying real-time and historical building performance and climate data.
- Art and data that connects people to a sense of place and understanding of their environment, such as a information about local flora and fauna, a map of where the building sits in the watershed, a graphic displaying the energy provided by the amount of annual sun hitting the building each year.
- Interactive art that connect patrons to experiential aspects of building performance and health, such as installations activated by sun or rain or people using the stairs.
- Hands-on educational programing such as using the site for ecological field study, on-site water and air testing, lessons on building science using tools such as a thermal camera, light meter, and CO2 sensor to investigate building performance. A thermal camera, for example, could be used to compare the different insulation values between a vegetated vs non-vegetated roof.



Scarsdale Library: LEED Feasibility Assessment

37	24	22	27	LEED NC 2009 Scorecard	7/30/15	LEED Manager: Ashlev Muse					
Y	H	L	N	CREDIT NAME	PTS	LEED REQUIREMENTS (Commercial)	ACTION ITEMS	STATUS	RESPONSIBLE		
Project Information Forms											
P				MPR 1: Environmental Laws		The LEED project building or space, all other real property within the LEED project boundary, and all project work must comply with applicable federal, state, and local building-related environmental laws and regulations in place where the project is located.	Project will comply with all environmental laws.				
P				MPR 2: Complete, Permanent Building or Space		All LEED projects must be designed for, constructed on, and operated on a permanent location on already existing land. LEED projects must include the new, ground-up design and construction, or major renovation, of at least one commercial, institutional, or high-rise residential building in its entirety.	Compliance will require renovation such that the building in its entirety meets all LEED NC prerequisites. The following two issues will make it very difficult to certify the additions on their own (without substantial renovation and inclusion of the existing space): 1. Mechanical connection to the existing building 2. Minor construction work would likely occur to the existing building as part of the construction contract making it difficult to separate cost and materials for the area intended to be LEED certified See the USGBC's Supplemental Guidance to the Minimum Program Requirements section on Attached Buildings for more details.	Priority			
P				MPR 3: Reasonable Site Boundary		The LEED project boundary should include all contiguous land that is associated with and supports	The LEED project boundary will likely be drawn at the property line.				
P				MPR 4: Minimum Floor Area		The LEED project must include a minimum of 1,000 square feet of gross floor area.	Project complies				
P				MPR 5: Minimum Occupancy		The LEED project must serve 1 or more Full Time Equivalent (FTE) occupant(s), calculated as an	Project complies				
P				MPR 6: Data Sharing		All certified projects must commit to sharing with USGBC and/or GBCI all available actual whole-	Owner to confirm the approach to sharing this data.				
P				MPR 7: Building: Site Area Ratio		The gross floor area of the LEED project building must be no less than 2% of the gross land area within the LEED project boundary.	Project complies				
11	7	1	7	Sustainable Sites (SS)							
P				SSp1: Construction Activity Pollution Prevention (C)		Implement an Erosion and Sedimentation Control plan, per EPA Construction General Permit or local code	Standard practice. Include requirements in construction documents		CONT		
			1	SSc1: Site Selection (D)	1	Avoid threatened habitat, parkland, farmland, wetlands (100'), water bodies (50'), previously undeveloped land 5' above 100 yr floodplain	Existing wetlands on site.	Complete	OWN		
			5	SSc2: Development Density & Community Connectivity (D)	5	Previously developed site within 1/2 mile of both residential zone (10 units/acre average) and 10 basic services, with pedestrian access // Previously	Only 5 services in radius.	Complete	ARCH		
			1	SSc3: Brownfield Redevelopment (D)	1	Develop on and remediate site classified as a brownfield by a local/state/federal govt. agency	Not a brownfield site.	Complete	OWN		
			6	SSc4.1: Alternative Transportation, Public Transportation Access (D)	6	Project located within 1/2 mile of a commuter rail, light rail or subway station; or 1/4 mile of one stop for two or more public or campus bus lines	Route 40/41 runs by SPL on 22, Route 34/38/39 2 miles away, consider a connecting shuttle.		ARCH		
			1	SSc4.2: Alternative Transportation, Bicycle Storage & Changing Rooms (D)	1	Secure bike storage for 5% of peak building users and changing/shower facilities for 0.5% of FTE occupants within 200 yds of the building	Provide bike racks on site for 5% of visitors, one shower for FTE use. Would be good amenity for community.		ARCH		
			3	SSc4.3: Alternative Transportation, Low Emitting and Fuel Efficient Vehicles (D)	3	5% of parking capacity as preferred parking, or 20% parking discount, for low-emitting/fuel efficient vehicles	New parking will be provided, designate 5% for carpools/vanpools.		OWN		
			2	SSc4.4: Alternative Transportation, Parking Capacity (D)	2	Size parking capacity to meet, not exceed, min. local zoning reqs and designate 5% of total spaces for carpools/vanpools	New parking will be provided, unlikely to exceed min. Designate 5% for carpools/vanpools.		ARCH		
			1	SSc5.1: Site Development, Protect or Restore Habitat (C)	1	Restore/protect a min. of 50% of site area excluding building (or 20% of total site area if greater) with native/adapted plants. Projects earning SSc2 can	Site restoration will take place with existing native planting areas to be preserved or replaced		LAND		
			1	SSc5.2: Site Development, Maximize Open Space (D)	1	Reduce development footprint and/or provide vegetated open space such that open space > local zoning reqs. by 25%.	Large site area.		LAN		
			1	SSc6.1: Stormwater Design - Quantity Control (D)	1	[Sites with imperviousness ≥ 50%:] Implement stormwater mgmt plan resulting in 25% decrease in the quantity of stormwater runoff from 2-year, 24-	rain-gardens for infiltration + vegetated section of the roof. Parking will be replaced and possibly added, so select permeable or open grid pavers. Two stormwater regulations are stringent so this		CIVIL		
			1	SSc6.2: Stormwater Design - Quality Control (D)	1	Use Best Management Practices (BMPs) to treat 80% Total Suspended Solids (TSS) for 90% average annual rainfall	Existing rain-gardens, wetland strip will contribute. Parking lot runoff potential to be further assessed.		CIVIL		
			1	SSc7.1: Heat Island Effect - Non-roof (C)	1	For 50% of the site hardscape provide tree shade within 5 yrs, shading from solar panels, SRI ≥ 29 paving materials, or open grid pavement	Parking lot addition will have largest impact on achieving credit threshold. Consider light color or open grid for parking stalls.		LAND		
			1	SSc7.2: Heat Island Effect - Roof (D)	1	Install high reflective roofing on 75% of roof surface. For low-sloped roof (≤ 2:12), SRI ≥ 78. For steep-sloped (> 2:12), SRI ≥ 29.	Replace/add flat roof with new high-SRI (light colored) surface combined with new vegetated roof section should outweigh slate roof to achieve credit.		ARCH		
			1	SSc8: Light Pollution Reduction (D)	1	50% power reduction at night for non-emergency interior lights visible from exterior; exterior lighting to meet ASHRAE 90.1-2007 Exterior Lighting Section	Unshielded existing parking lights are largest barrier. Some poles will be removed as part of the renovation, may be achievable.		ELEC		
6	2	0	2	Water Efficiency (WE)							
P				WEp1: Water Use Reduction		Reduce indoor water use by 20% over EPAAct 1992, including WC, urinals, lavs, showers, kitchen sink and pre-rinse valves	All existing water fixtures will be replaced.		PLUMB		
			4	WEc1: Water Efficient Landscaping	4	Option 1 (2 pts): Reduce potable water consumption for irrigation by 50% over local baseline OR	No permanent irrigation on site, and no plans to add irrigation during site improvements.		LAND		

LEED Status Summary

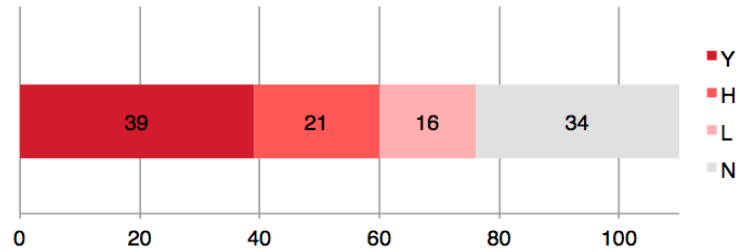


Figure 1

LEED NC v2009 - Certification Levels
 Certified: 40 to 49 points
 Silver: 50 to 59 points
 Gold: 60 to 79 points
 Platinum: 80 to 110 points

LEED Status Summary (by Category)

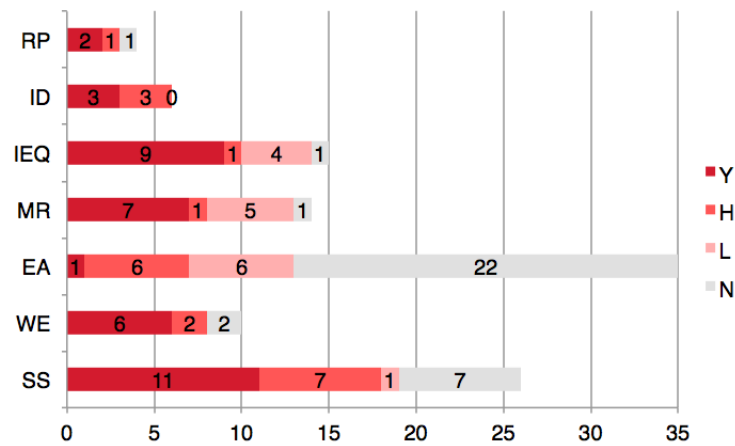


Figure 2

Figure 2 is a summary of the anticipated LEED point status broken down by credit category. This information should be evaluated in relation to project goals to determine if additional opportunities should be pursued.

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			2	WEc2: Innovative Wastewater Technologies	2	Reduce potable water for sewage conveyance by 50% compared to EPA 1992 // Treat 50% wastewater on-site to tertiary standards and use on		PLUMB	
2	2			WEc3: Water Use Reduction	4	Reduce indoor water use by 30% (2 pts), 35% (3 pts), or 40% (4 pts) over EPA 1992	All existing water fixtures will be replaced. High-efficiency fixtures could be specified to further reduce water use. 40% can be more difficult to achieve without urinals.	PLUMB	
1	8	11	15	Energy and Atmosphere (EA)					
P				EAp1: Fundamental Commissioning of the Building Energy Systems (C)		Independent Cx to review BOD, incorporate Cx requirements into CDs, develop and implement Cx plan, and complete Cx report summary	Owner to ensure a CxA is contracted by the start of Construction Documents phase.	Cx	
	P			EAp2: Minimum Energy Performance (D)		Show 5% improvement in modeled performance for major renovations/existing buildings AND comply with mandatory provisions of ASHRAE 90.1-2007	New systems will serve additions only. Existing systems unlikely to meet efficiency requirements. Envelope improvements to windows and roof are helpful, but whole-building analysis required to determine relative impact of existing equipment.	Priority MECH / E.M.	
P				EAp3: Fundamental Refrigerant Management (D)		No CFC based refrigerants. For existing buildings, phase out plan required for equipment using CFCs required.	The existing water chiller will not be replaced. If more capacity is needed a new chiller will augment the existing for schematic pricing. Confirm that the base building equipment does not include any CFC based refrigerants.	Priority MECH	
2	2	15		EAc1: Optimize Energy Performance	19	Whole Building Energy Simulation ONLY: [new buildings] 12-48% energy improvement (1 pt per 2% increment) [existing buildings] 8-44% energy	See EAc1.	MECH / E.M.	
2	5			EAc2: On-Site Renewable Energy (D)	7	On-site solar, wind, hydro or biomass for 1-13% total annual energy cost (1 pt per 2% increment)	Dependent upon the amount of capacity of the solar photovoltaic array as compared to the building's energy demand.	OWNER / ELECT	
2				EAc3: Enhanced Commissioning (C)	2	3rd-party Cx to review owner's BOD prior to CD, review contractor submittals, develop systems manual, verify training, develop Cx plan	Associated soft costs, but high-value to owner-occupied public project if significant HVAC improvements are performed.	Cx	
		2		EAc4: Enhanced Refrigeration Management (D)	2	HVAC&R to minimize ozone depletion based on specified formula. No CFC or HCFCs in fire suppression systems	Confirm with MEP based on proposed equipment type. Existing base building systems are likely barrier.	MECH	
1		2		EAc5: Measurement & Verification (C)	3	Implement M&V Plan (IPMVP Option B or D) to compare predicted to actual performance. Provide corrective action process if targets not met.	One point achieved for benchmarking. M&V plan would need to be developed for other requirements.	MECH	
	2			EAc6: Green Power (C)	2	Contract for two years of certified green power for 35% of electricity use (not cost)	Easy to achieve, but would be added cost.	OWN	
5	2	6	1	Materials and Resources (MR)					
P				MRp1: Storage & Collection of Recyclables (D)		Recycling collection and storage area(s) for convenient occupant recycling of paper, cardboard, glass, plastics, and metals for entire building.	Identify interior/exterior locations for collection and storage of recyclables.	ARCH	
1	1	1		MRc1.1: Building Reuse - Maintain Existing Walls, Floors & Roof (C)	3	Maintain 55% (1 pt), 75% (2 pts), or 95% (3 pts) of existing building by surface area (floor and roof decking, skin, and framing, excluding windows and hazmats)	Existing building will be preserved, but roof will be replaced.	ARCH	
		1		MRc1.2: Building Reuse - Maintain Interior Non-Structural Elements (C)	1	Maintain existing interior non-structural elements in at least 50% (by area) of the completed building (including additions) // N/A for buildings with additions more than two times the square footage of the existing building	Depends on extent of renovation of existing interiors, evaluate based on proposed scheme during DD to confirm. Plans for rearrangement of spaces in main building will be largest barrier.	ARCH	
2				MRc2: Construction Waste Management (C)	2	Recycle/divert 50% (1 pt) or 75% (2 pts) of demo and construction waste through on-site separation or co-mingling program	75% diversion commonly achieved.	CONT	
		2		MRc3: Material Reuse (C)	2	Specify salvaged, reused or refurbished materials for 5% (1 pt) or 10% (2 pts) of total materials costs, excluding MEP	Could benefit the historic building narrative, but difficult to specify.	ARCH / CONT	
1	1			MRc4: Recycled Content (C)	2	Postconsumer recycled content + 1/2 preconsumer recycled content in products = 10% (1 pt) or 20% (2 pts) of total materials cost. Excludes MEP.	10% recycled content commonly achieved with typical materials. Prioritize high-cost items for recycled content.	ARCH / CONT	
1		1		MRc5: Regional Materials (C)	2	Specify products extracted AND manufactured within 500 miles of the site for 10% (1 pt) or 20% (2 pts) of total materials cost. Excludes MEP.	10% regional materials commonly achieved with typical materials. Prioritize high-cost items for regional manufacture.	ARCH / CONT	
		1		MRc6: Rapidly Renewable Materials (C)	1	Specify rapidly renewable materials and products for 2.5% of total building materials costs.	Difficult to meet cost threshold.	ARCH / CONT	
		1		MRc7: Certified Wood (C)	1	50% (cost-based) of all new wood based products (including framing, flooring, doors, etc.) to be FSC certified.	May be achievable with high amount of wood products, but has cost implication.	ARCH / CONT	
9	1	4	1	Indoor Environmental Quality (IEQ)					
	P			IEQp1: Minimum IAQ Performance (D)		Meet ASHRAE 62.1-2007 through ventilation rate procedure for ventilation systems // through Paragraph 5.1 for natural ventilation systems	Capacity and distribution of existing system may be barrier.	Priority MECH	
P				IEQp2: Environmental Tobacco Smoke (ETS) Control (D)		No smoking in building. Exterior smoking areas 25 ft. away from entries, outdoor air intakes and operable windows, with signage // [option 2] No smoking in [Mechanical ventilation] Install permanent system that signals when airflow or CO2 varies by 10%. Monitor CO2 within all densely occupied spaces	Compatability with existing system may be barrier.	MECH	
		1		IEQc1: Outdoor Air Delivery Monitoring (D)	1	[Mechanically Vent. Spaces] Increase breathing zone outdoor air ventilation rates by min 30% above ASHRAE Standard 62.1-2007 in all occupied	Capacity of existing system may be barrier.	MECH	

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1				IEQc3.1: Construction IAQ Management Plan: During Construction (C)	1	IAQ management plan that meets SMACNA, protect absorptive construction materials and (if air handler is used during construction) incorporate MERV 8	Standard practice and will help improve indoor air quality in space.	CONT	
		1		IEQc3.2: Construction IAQ Management Plan - Before Occupancy (C)	1	Flush Out: 14,000 cf/sf flush out prior to occupancy, after all finishes installed OR 3,500 cf/sf prior to occupancy, then 0.30 cf/sf daily to 14,000 cf/sf total OR	Duct flushout already planned. Full flush out if scheduling allows, would help improve indoor air quality in space. Shorter flush-out period if air distribution is replaced with a more effective system.	CONT / MECH	
1				IEQc4.1: Low-Emitting Materials - Adhesives & Sealants (C)	1	All adhesives and sealants within weather barrier to be low VOC	Include in specifications, easily sourced and will help improve air quality in space.	ARCH / CONT	
1				IEQc4.2: Low-Emitting Materials - Paints & Coatings (C)	1	All paints and coatings within weather barrier to be low VOC	Include in specifications, easily sourced and will help improve air quality in space.	ARCH / CONT	
1				IEQc4.3: Low-Emitting Materials - Flooring Systems (C)	1	CRI certified carpet/cushion, FloorScore hard flooring, finishes and adhesives to meet IEQc4.1-4.2	Include in specifications, easily sourced and will help improve air quality in space.	ARCH / CONT	
1				IEQc4.4: Low-Emitting Materials, Composite Wood & Agrifiber (C)	1	All composite wood and agrifiber products and laminating adhesives to be NAUF (both on- and off-site assembly)	Include in specifications, easily sourced and will help improve air quality in space.	ARCH / CONT	
		1		IEQc5: Indoor Chemical & Pollutant Source Control (D)	1	Entry mats (10' in direction of travel) at major entrances, exhaust and separate areas of chemical use, MERV-13 filters, containment for liquid hazmats	Space for entry mats and compatability with existing system for MERV-13 filters are likely barriers.	MECH	
1				IEQc6.1: Controllability of Systems - Lighting (D)	1	Provide individual lighting controls for 90% of building occupants and lighting controls for all shared multi-occupant spaces	New lighting systems will be installed.	ELEC	
		1		IEQc6.2: Controllability of Systems - Thermal Comfort (D)	1	Provide thermal comfort controls or operable windows for 50% of occupants and for shared multi-occupant spaces	Controls would mainly need to be added to private offices without operable windows to meet credit requirements.	MECH	
1				IEQc7.1: Thermal Comfort - Design (D)	1	Design HVAC systems to meet ASHRAE 55-2004 (temperature and humidity)	Standard practice, but compliance of existing system would need to be studied.	MECH	
1				IEQc7.2: Thermal Comfort - Verification (D)	1	Achieve IEQc7.1, conduct thermal comfort survey of occupants within 6-18 months, and provide permanent monitoring to measure comfort criteria	Good practice to validate improvements and identify/reduce potential complaints	OWN / MECH	
		1		IEQc8.1: Daylight & Views - Daylight (D)	1	Achieve daylighting for 75% of all regularly occupied spaces through computer simulation, prescriptive method, and/or measurement	New additions likely to comply with attention to glazing dimensions, specifications, and glare control. Concerns about meeting daylight in older sections of building, especially if mezzanine is not removed.	ARCH	
1				IEQc8.2: Daylight & Views - Views (D)	1	Incorporate views to exterior for 90% of occupants (both in plan and section view)	A few offices in the basement will not meet requirements, but threshold should be achievable.	ARCH	
3	3	0	0	Innovation and Design (ID)					
1				IDc1A: Innovation and Design	1	Path 1: Innovation and Design - 1 pt for each innovation (no more than 5 pts) Path 2: Exemplary Performance: no more than 3 pts	Exemplary performance: TBD	TBD	
1				IDc1B: Innovation and Design	1	Path 1: Innovation and Design - 1 pt for each innovation (no more than 5 pts) Path 2: Exemplary Performance: no more than 3 pts	Exemplary performance: TBD	TBD	
		1		IDc1C: Innovation and Design	1	Path 1: Innovation and Design - 1 pt for each innovation (no more than 5 pts) Path 2: Exemplary Performance: no more than 3 pts	Green Education would be a great addition based on staff feedback	TBD	
		1		IDc1D: Innovation and Design	1	Path 1: Innovation and Design - 1 pt for each innovation (no more than 5 pts) Path 2: Exemplary Performance: no more than 3 pts	Consider Operations & Maintenance programs like green cleaning or integrated waste management	TBD	
		1		IDc1E: Innovation and Design	1	Path 1: Innovation and Design - 1 pt for each innovation (no more than 5 pts) Path 2: Exemplary Performance: no more than 3 pts		TBD	
1				IDc2: LEED™ Accredited Professional (C)	1	At least one principal participant of the project team is LEED Accredited Professional (AP).		YR&G	
2	1	0	1	Regional Priority (RP)					
		1		Regional Priority 1.1: SSc4.1 - Alternative Transportation, Public Transportation Access (D)	1	Meet the requirements of SSc4.1		TBD	
1				Regional Priority 1.2: SSc5.1 - Site Development, Protect or Restore Habitat (C)	1	Meet the requirements of SSc5.1		TBD	
1				Regional Priority 1.3: SSc6.2 - Stormwater Design - Quality Control (D)	1	Meet the requirements of SSc6.2		TBD	
			1	Regional Priority 1.4: WEc2, EAc1, or EAc2	1			TBD	

**TOSCANO CLEMENTS TAYLOR
COST CONSULTANTS
16 OAKWOOD ROAD, HUNTINGTON NY 11743**

**SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY**

QUALIFICATIONS AND NOTES

- 1 Excludes A/E fees
- 2 Excludes Construction Management or Project Management fees
- 3 Excavation does not include removal of contaminated materials
- 4 Dewatering is excluded
- 5 Based on documents prepared by Dattner Architects
- 6 The Estimate is valid for a period of 3 months
- 7 The Cost Estimate includes escalation to midpoint of construction at 3.5% per annum.
- 8 Excludes FF&E

**SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY**

August 5, 2015

SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION

SCHEMATIC DESIGN COST ESTIMATE

PROJECT ESTIMATE SUMMARY SHEET - SINGLE STAGE

GROSS BUILDING AREA:

REHABILITATION = 26,825
 NEW CONSTRUCTION = 10,035
 TOTAL = 36,860

REHABILITATION = 28,848
 NEW CONSTRUCTION = 6,423
 TOTAL = 35,271

DATE : 5-Aug-15

Option A

Option B

DIVISION	DIVISION TITLE	MATERIAL	LABOR	TOTAL COST	\$ / GSF
2	SITE WORKS, SITE RELATED	\$159,232	\$658,933	\$817,125	\$ 22.17
2A	SITE WORKS, BUILDING RELATED	\$ 10,504	\$ 98,843	\$ 109,347	\$ 2.97
3	CONCRETE	\$ 578,885	\$ 558,918	\$ 1,137,803	\$ 30.87
4	MASONRY	\$ 79,644	\$ 146,553	\$ 226,197	\$ 6.14
5	METALS	\$ 86,035	\$ 73,590	\$ 159,625	\$ 4.33
6	WOOD AND PLASTICS	\$ 43,087	\$ 72,282	\$ 115,369	\$ 3.13
7	THERMAL AND MOISTURE PROTECTION	\$ 590,658	\$ 635,218	\$ 1,225,876	\$ 33.26
8	DOORS AND WINDOWS	\$ 436,866	\$ 245,244	\$ 682,110	\$ 18.51
9	FINISHES	\$ 588,335	\$ 821,446	\$ 1,409,780	\$ 38.25
10	SPECIALTIES	\$ 35,815	\$ 47,545	\$ 83,360	\$ 2.26
11	EQUIPMENT	\$ -	\$ -	\$ -	\$ -
12	FURNISHINGS	\$ -	\$ -	\$ -	\$ -
14	CONVEYING EQUIPMENT	\$ 90,000	\$ 60,000	\$ 150,000	\$ 4.07
				\$ -	\$ -
15	MECHANICAL - FIRE PROTECTION	\$ 98,200	\$ 162,100	\$ 260,300	\$ 7.06
15	MECHANICAL - PLUMBING	\$ 124,115	\$ 195,602	\$ 319,717	\$ 8.67
15	MECHANICAL - HVAC	\$ 500,291	\$ 518,356	\$ 1,018,647	\$ 27.64
16	ELECTRICAL	\$ 264,611	\$ 339,145	\$ 2,085,744	\$ 56.59
				\$ -	\$ -
SUB TOTAL BUILDING ESTIMATE				\$ 9,800,999	\$ 265.90
GENERAL CONDITIONS : 8.00%				\$ 784,080	\$ 21.27
OVERHEAD AND PROFIT : 8.00%				\$ 784,080	\$ 21.27
DESIGN CONTINGENCIES : 10.00%				\$ 980,100	\$ 26.59
PHASING :				\$ -	\$ -
SUB TOTAL				\$ 12,349,258	\$ 335.03
ESCALATION (3.5% PER ANNUM, CONSTRUCTION) 7.88%				\$ 972,504	\$ 26.38
BID CONTINGENCY : 5.00%				\$ 617,463	\$ 16.75
TOTAL BUILDING CONSTRUCTION ESTIMATE				\$ 13,939,225	\$ 378.17

MATERIAL	LABOR	TOTAL COST	\$ / GSF
\$162,078	\$588,868	\$750,946	\$ 21.29
\$ 10,504	\$ 34,749	\$ 45,253	\$ 1.28
\$ 353,044	\$ 236,265	\$ 589,309	\$ 16.71
\$ 77,658	\$ 143,772	\$ 221,430	\$ 6.28
\$ 47,840	\$ 44,795	\$ 102,235	\$ 2.90
\$ 35,186	\$ 50,531	\$ 85,717	\$ 2.43
\$ 527,711	\$ 549,978	\$ 1,077,688	\$ 30.55
\$ 358,116	\$ 215,394	\$ 573,510	\$ 16.26
\$ 521,634	\$ 725,563	\$ 1,247,197	\$ 35.36
\$ 35,418	\$ 46,353	\$ 81,771	\$ 2.32
\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -
\$ 90,000	\$ 60,000	\$ 150,000	\$ 4.25
		\$ -	\$ -
\$ 87,200	\$ 142,850	\$ 230,050	\$ 6.52
\$ 110,070	\$ 174,770	\$ 284,840	\$ 8.08
\$ 448,579	\$ 475,168	\$ 923,747	\$ 26.19
\$ 147,211	\$ 133,695	\$ 1,700,999	\$ 48.23
		\$ -	\$ -
		\$ 8,064,691	\$ 228.65
		\$ 645,175	\$ 18.29
		\$ 645,175	\$ 18.29
		\$ 806,469	\$ 22.86
		\$ -	\$ -
		\$ 10,161,510	\$ 288.10
		\$ 800,219	\$ 22.69
		\$ 508,076	\$ 14.40
		\$ 11,469,805	\$ 325.19

Delta
\$66,179
\$64,094
\$548,494
\$4,767
\$57,390
\$29,652
\$148,187
\$108,600
\$162,583
\$1,589
\$0
\$0
\$0
\$30,250
\$34,877
\$94,900
\$384,746
\$0
\$1,736,308
\$138,905
\$138,905
\$173,631
\$0
\$2,187,748
\$172,285
\$109,387
\$2,469,420

Owner Furnished Items				
16	AV Package			\$756,658 \$ 20.53
16	IT Package			\$70,912 \$ 1.92
	FF&E			\$1,788,881 \$ 48.53
TOTAL BUILDING CONSTRUCTION ESTIMATE INCL. OWNER FURNISHED ITEMS				\$16,555,676 \$ 449.15

		\$756,658	\$ 21.45
		\$70,912	\$ 2.01
		\$1,788,881	\$ 50.72
		\$14,086,256	\$ 399.37

\$0
\$0
\$0
\$2,469,420

SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
SCHEMATIC DESIGN COST ESTIMATE
 54 Olmsted Rd, Scarsdale, NY

Escalation Assumptions - Based on Single Stage Construction Schedule

BUILDING CONSTRUCTION	2015					2016						2017						2018																
	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December					
Bidding																																		
Abatement																																		
Construction																	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Mid Point	01	02	03	04	05	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10							
Escalation																																		
Year 1	5 month @ 3.5% per annum																																	
Year 2						12 month @ 3.5% per annum																												
Year 3																	10 month @ 3.5% per annum																	

Total Escalation

1.46%	Year 1
3.50%	Year 2
2.92%	Year 3
7.88%	TOTAL

**SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
SCHEMATIC DESIGN COST ESTIMATE**

PROJECT ESTIMATE SUMMARY SHEET - TWO STAGES

GROSS BUILDING AREA:

REHABILITATION = 26,825
NEW CONSTRUCTION = 10,035
TOTAL = **36,860**

REHABILITATION = 28,848
NEW CONSTRUCTION = 6,423
TOTAL = **35,271**

DATE : 5-Aug-15

Option A

Option B

DIVISION	DIVISION TITLE	MATERIAL	LABOR	TOTAL COST	\$ / GSF	MATERIAL	LABOR	TOTAL COST	\$ / GSF	Delta
2	SITE WORKS, SITE RELATED	\$159,232	\$658,933	\$817,125	\$ 22.17	\$162,078	\$588,868	\$750,946	\$ 21.29	\$66,179
2A	SITE WORKS, BUILDING RELATED	\$ 10,504	\$ 98,843	\$ 109,347	\$ 2.97	\$ 10,504	\$ 34,749	\$ 45,253	\$ 1.28	\$64,094
3	CONCRETE	\$ 578,885	\$ 558,918	\$ 1,137,803	\$ 30.87	\$ 353,044	\$ 236,265	\$ 589,309	\$ 16.71	\$548,494
4	MASONRY	\$ 79,644	\$ 146,553	\$ 226,197	\$ 6.14	\$ 77,658	\$ 143,772	\$ 221,430	\$ 6.28	\$4,767
5	METALS	\$ 86,035	\$ 73,590	\$ 159,625	\$ 4.33	\$ 47,840	\$ 44,795	\$ 102,235	\$ 2.90	\$57,390
6	WOOD AND PLASTICS	\$ 43,087	\$ 72,282	\$ 115,369	\$ 3.13	\$ 35,186	\$ 50,531	\$ 85,717	\$ 2.43	\$29,652
7	THERMAL AND MOISTURE PROTECTION	\$ 590,658	\$ 635,218	\$ 1,225,876	\$ 33.26	\$ 527,711	\$ 549,978	\$ 1,077,688	\$ 30.55	\$148,187
8	DOORS AND WINDOWS	\$ 436,866	\$ 245,244	\$ 682,110	\$ 18.51	\$ 358,116	\$ 215,394	\$ 573,510	\$ 16.26	\$108,600
9	FINISHES	\$ 588,335	\$ 821,446	\$ 1,409,780	\$ 38.25	\$ 521,634	\$ 725,563	\$ 1,247,197	\$ 35.36	\$162,583
10	SPECIALTIES	\$ 35,815	\$ 47,545	\$ 83,360	\$ 2.26	\$ 35,418	\$ 46,353	\$ 81,771	\$ 2.32	\$1,589
11	EQUIPMENT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
12	FURNISHINGS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
14	CONVEYING EQUIPMENT	\$ 90,000	\$ 60,000	\$ 150,000	\$ 4.07	\$ 90,000	\$ 60,000	\$ 150,000	\$ 4.25	\$0
				\$ -	\$ -			\$ -	\$ -	\$0
15	MECHANICAL - FIRE PROTECTION	\$ 98,200	\$ 162,100	\$ 260,300	\$ 7.06	\$ 87,200	\$ 142,850	\$ 230,050	\$ 6.52	\$30,250
15	MECHANICAL - PLUMBING	\$ 124,115	\$ 195,602	\$ 319,717	\$ 8.67	\$ 110,070	\$ 174,770	\$ 284,840	\$ 8.08	\$34,877
15	MECHANICAL - HVAC	\$ 500,291	\$ 518,356	\$ 1,018,647	\$ 27.64	\$ 448,579	\$ 475,168	\$ 923,747	\$ 26.19	\$94,900
16	ELECTRICAL	\$ 264,611	\$ 339,145	\$ 2,085,744	\$ 56.59	\$ 147,211	\$ 133,695	\$ 1,700,999	\$ 48.23	\$384,746
17	ADDITIONAL MEP COSTS DUE TO DOING THE PROJECT IN 2 STAGES			\$ 100,000	\$ 2.71			\$ 100,000	\$ 2.84	\$0
	SUB TOTAL BUILDING ESTIMATE			\$ 9,900,999	\$ 268.61			\$ 8,164,691	\$ 231.48	\$1,736,308
	GENERAL CONDITIONS : 8.00%			\$ 792,080	\$ 21.49			\$ 653,175	\$ 18.52	\$138,905
	OVERHEAD AND PROFIT : 8.00%			\$ 792,080	\$ 21.49			\$ 653,175	\$ 18.52	\$138,905
	DESIGN CONTINGENCIES : 10.00%			\$ 990,100	\$ 26.86			\$ 816,469	\$ 23.15	\$173,631
	PHASING : 5.00%			\$ 495,050	\$ 13.43			\$ 408,235	\$ 11.57	\$86,815
	SUB TOTAL			\$ 12,970,308	\$ 351.88			\$ 10,695,745	\$ 303.24	\$2,274,563
	ESCALATION ; Stage 1 6.42%			\$ 499,357	\$ 13.55			\$ 411,786	\$ 11.67	\$87,571
	ESCALATION ; Stage 2 12.25%			\$ 635,545	\$ 17.24			\$ 524,092	\$ 14.86	\$111,454
	BID CONTINGENCY : 5.00%			\$ 648,515	\$ 17.59			\$ 534,787	\$ 15.16	\$113,728
	TOTAL BUILDING CONSTRUCTION ESTIMATE			\$ 14,753,726	\$ 400.26			\$ 12,166,410	\$ 344.94	\$2,587,316

Owner Furnished Items										
16	AV Package			\$756,658	\$ 20.53			\$756,658	\$ 21.45	\$0
16	IT Package			\$70,912	\$ 1.92			\$70,912	\$ 2.01	\$0
	FF&E			\$1,788,881	\$ 48.53			\$1,788,881	\$ 50.72	\$0
	TOTAL BUILDING CONSTRUCTION ESTIMATE INCL. OWNER FURNISHED ITEMS			\$17,370,177	\$ 471.25			\$14,782,861	\$ 419.12	\$2,587,316

SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION SCHEMATIC DESIGN COST ESTIMATE

Project Breakouts; Kit of Parts Pricing

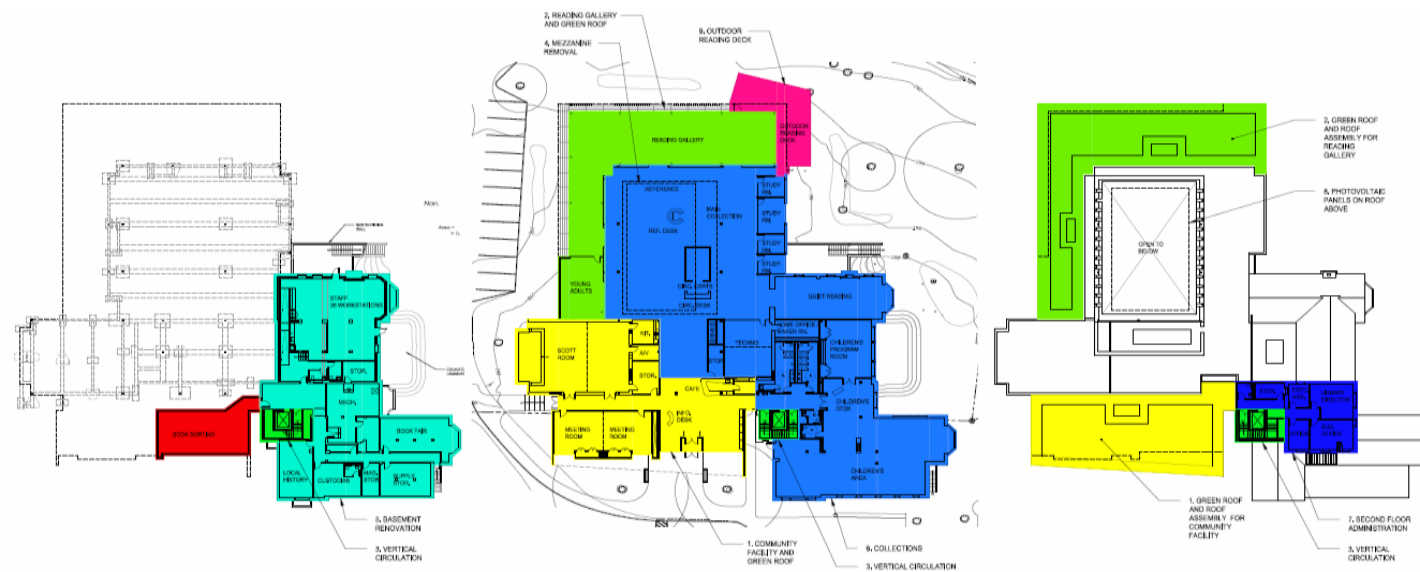
#	Breakout	42% Option A			49% Option B		
		TRADE COST	MARKUPS	TOTAL COST	TRADE COST	MARKUPS	TOTAL COST
01	Community Facility	\$1,575,854	\$ 665,365	\$2,241,219	\$1,414,296	\$693,182	\$2,107,478
02	Reading Gallery + Green Roof	\$1,792,275	\$ 756,743	\$2,549,018	\$1,240,726	\$608,111	\$1,848,836
03	Vertical Circulation	\$227,053	\$ 95,867	\$322,920	\$227,053	\$111,284	\$338,337
04	Mezzanine Removal	\$41,640	\$ 17,581	\$59,221	\$0	\$0	\$0
05	Basement Floor Renovation	\$1,216,101	\$ 513,468	\$1,729,569	\$660,059	\$323,511	\$983,570
06	Collections	\$2,704,430	\$ 1,141,878	\$3,846,308	\$2,952,346	\$1,447,019	\$4,399,364
07	Second floor Admin	\$391,049	\$ 165,110	\$556,159	\$391,049	\$191,663	\$582,711
08	Photovoltaic	\$322,850	\$ 136,315	\$459,165	\$0	\$0	\$0
09	Outdoor reading Deck	\$37,244	\$ 15,725	\$52,969	\$0	\$0	\$0
10	Booksorting Room	\$244,770	\$ 103,348	\$348,118	\$0	\$0	\$0
TOTAL BREAKOUTS COST				\$12,164,668			\$ 10,260,297

Notes:

Kit of parts cost Excludes AV & IT costs

Kit of parts cost Excludes Site works & Roof replacement

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. Community Facility 2. Reading Gallery + Green roof 3. Vertical Circulation 4. Mezzanine Removal 5. Basement Floor Renovation | <ul style="list-style-type: none"> 6. Collections 7. Second Floor Admin 8. Photovoltaic 9. Outdoor Reading Deck 10. Booksorting Room |
|--|--|



SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

DESCRIPTION		QUANTITY	UNIT	MATERIAL UNIT RATE	MATERIAL AMOUNT	LABOR UNIT RATE	LABOR AMOUNT	UNIT PRICE	TOTAL AMOUNT	5-Aug-15		Delta Amount
											TOTAL AMOUNT	
01000 GENERAL REQUIREMENT												
Contractor's general requirement										REFER TO PROJECT ESTIMATE SUMMARY SHEET		
Total											\$0	
02000 SITE WORKS												
02000 EXISING CONDITIONS												
3	Remove ceiling's	26,825	SF	\$0.00	\$0	\$1.75	\$46,944	\$1.75	\$46,944			
5	Remove GWB partitions	18,300	SF	\$0.00	\$0	\$1.50	\$27,450	\$1.50	\$27,450			
	X-tra cost for doors	32	EA	\$0.00	\$0	\$150.00	\$4,800	\$150.00	\$4,800			
7	Remove existing lintels	13	LF	\$0.00	\$0	\$5.00	\$65	\$5.00	\$65			
8	Demo existing roofs Area A-G and M	11,440	SF	\$0.00	\$0	\$3.50	\$40,040	\$3.50	\$40,040			
	Demo existing roofs Area I-K	7,800	SF	\$0.00	\$0	\$3.50	\$27,300	\$3.50	\$27,300			
	No Allowance was made for Asbestos abatement @ Roofs ... Excluded from this estimate				\$0		\$0	\$0.00	\$0			
11	Removal of existing floor finishes	26,825	SF	\$0.00	\$0	\$1.75	\$46,944	\$1.75	\$46,944			
12	Flash patch existing floors	26,825	SF	\$0.00	\$0	\$1.50	\$40,238	\$1.50	\$40,238			
13	Remove existing interior glazing	44	LF	\$0.00	\$0	\$10.00	\$440	\$10.00	\$440			
15	Remove exterior wall	2,000	SF	\$0.00	\$0	\$30.00	\$60,000	\$30.00	\$60,000			
20	Remove existing lighting both floors				\$0	\$0.00	\$0	\$0.00	\$0			
21	Remove existing duct work and registers on both floors			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0			
22	Remove existing 7'-7" high perimeter shelving	1,550	LF	\$0.00	\$0	\$25.00	\$38,750	\$25.00	\$38,750			
24	Scaffolding	1	LS	\$10,500	\$10,500	\$7,000.00	\$7,000	\$17,500.00	\$17,500			
27	Miscellaneous protection & demolition	1	LS	\$500.00	\$500	\$4,500.00	\$4,500	\$5,000.00	\$5,000			
	Remove and relocate existing furniture	1	LS		\$0	\$40,000.00	\$40,000	\$40,000.00	\$40,000			
	Remove cleanout	1	EA	\$150.00	\$150	\$150.00	\$150	\$150.00	\$150			
	Sawcut Asphalt	404	LF	\$0.50	\$202	\$2.00	\$808	\$2.50	\$1,010			
	Remove Asphalt	5,152	SF	\$0.50	\$2,576	\$2.17	\$11,180	\$2.67	\$13,756			
	Silt Fence	441	LF	\$0.60	\$265	\$1.18	\$520	\$1.78	\$785			
	Cut slab	90	LF	\$0.50	\$45	\$2.00	\$180	\$2.50	\$225			
	Remove slab	250	SF	\$0.50	\$125	\$1.50	\$375	\$2.00	\$500			
	Remove Slab at basement	2,227	SF	\$0.50	\$1,114	\$20.00	\$44,540	\$20.50	\$45,654			
	Remove Mezzanine	2,082	SF	\$0.50	\$1,041	\$20.00	\$41,640	\$20.00	\$41,640			
					\$0		\$0	\$0.00	\$0			
	Site Work				\$0		\$0	\$0.00	\$0			
	Storm Utility				\$0		\$0	\$0.00	\$0			
	6" storm line	108	LF	\$9.00	\$972	\$7.00	\$756	\$16.00	\$1,728			
	6" HDPE Sorm line	101	LF	\$9.00	\$909	\$7.00	\$707	\$16.00	\$1,616			
	8" HDPE Sorm line	80	LF	\$9.86	\$789	\$7.65	\$612	\$17.51	\$1,401			
	12" HDPE Sorm line	462	LF	\$12.00	\$5,544	\$16.00	\$7,392	\$28.00	\$12,936			
	12" storm line cleanout	1	EA	\$150.00	\$150	\$90.00	\$90	\$240.00	\$240			
	6" perforated PVC	137	LF	\$9.00	\$1,233	\$7.00	\$959	\$16.00	\$2,192			
	Catch Basin	3	EA	\$1,200.00	\$3,600	\$900.00	\$2,700	\$2,100.00	\$6,300			
	Cistern, excav 37 CY, back fill 24 CY, 8" stone 37 SF	1	EA	\$6,000.00	\$6,000	\$3,000.00	\$3,000	\$9,000.00	\$9,000			
	Rain Barrel, 4' x 2.5' 6" pavers under barrel, and 4" stone base	1	EA	\$2,500.00	\$2,500	\$1,800.00	\$1,800	\$4,300.00	\$4,300			
	Rain Garden monitor well	3	EA	\$1,200.00	\$3,600	\$1,500.00	\$4,500	\$2,700.00	\$8,100			
	Rain Garden Yard Drain	7	EA	\$820.00	\$5,740	\$650.00	\$4,550	\$1,470.00	\$10,290			
	Rain Garden 8" inlet	6	EA	\$650.00	\$3,900	\$550.00	\$3,300	\$1,200.00	\$7,200			
	Meter Control, excav 14 CY, backfill 9 CY, 20SF of 6" thick stone	2	EA	\$950.00	\$1,900	\$600.00	\$1,200	\$1,550.00	\$3,100			
	Remove slab	1	EA		\$0		\$0	\$0.00	\$0			
	Remove pavements	5,717	SF	\$0.25	\$1,429	\$1.50	\$8,576	\$1.75	\$10,005			
					\$0		\$0	\$0.00	\$0			
	Earthwork				\$0		\$0	\$0.00	\$0			
					\$0		\$0	\$0.00	\$0			

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

5-Aug-15

5-Aug-15

DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
Hardscape				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Asphalt Pavement	4,133	SF	\$3.00	\$12,399	\$0.93	\$3,844	\$3.93	\$16,243	4,133	SF	\$3.00	\$12,399	\$0.93	\$3,844	\$3.93	\$16,243	\$0
Concrete pavement	906	SF	\$1.85	\$1,676	\$4.00	\$3,624	\$5.85	\$5,300	906	SF	\$1.85	\$1,676	\$4.00	\$3,624	\$5.85	\$5,300	\$0
Concrete Pavers	2,324	SF	\$5.00	\$11,620	\$22.00	\$51,128	\$27.00	\$62,748	2,324	SF	\$5.00	\$11,620	\$22.00	\$51,128	\$27.00	\$62,748	\$0
5' Previous Concrete walkway, slvage and reuse stone curb	1,165	SF	\$5.00	\$5,825	\$4.00	\$4,660	\$9.00	\$10,485	1,165	SF	\$5.00	\$5,825	\$4.00	\$4,660	\$9.00	\$10,485	\$0
4' wide Previous Concrete Walkway	324	SF	\$1.90	\$616	\$4.00	\$1,296	\$5.90	\$1,912	324	SF	\$1.90	\$616	\$4.00	\$1,296	\$5.90	\$1,912	\$0
12" Equipment pad	161	SF	\$3.50	\$564	\$7.00	\$1,127	\$10.50	\$1,691	161	SF	\$3.50	\$564	\$7.00	\$1,127	\$10.50	\$1,691	\$0
5 bluestone steps 8' x 18" deep and 4" high steps	1	EA	\$600.00	\$600	\$800.00	\$800	\$1,400.00	\$1,400	1	EA	\$600.00	\$600	\$800.00	\$800	\$1,400.00	\$1,400	\$0
6" deep gravel bed	900	Sf	\$2.00	\$1,800	\$3.50	\$3,150	\$5.50	\$4,950	900	EA	\$2.00	\$1,800	\$3.50	\$3,150	\$5.50	\$4,950	\$0
Allowance for additional Lanscaping fo option B	0	LS		\$0		\$0	\$0.00	\$0	1	LS	\$5,000.00	\$5,000	\$6,000.00	\$6,000	\$11,000.00	\$11,000	\$11,000
Site Furnishing				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Relocate stone monuement and plaqe	1	EA	\$800.00	\$800	\$2,200.00	\$2,200	\$3,000.00	\$3,000	1	EA	\$800.00	\$800	\$2,200.00	\$2,200	\$3,000.00	\$3,000	\$0
Large Site Sign with footing	1	EA	\$3,000.00	\$3,000	\$2,200.00	\$2,200	\$5,200.00	\$5,200	1	EA	\$3,000.00	\$3,000	\$2,200.00	\$2,200	\$5,200.00	\$5,200	\$0
6' Vinyl fence	75	LF	\$18.00	\$1,350	\$12.00	\$900	\$30.00	\$2,250	75	LF	\$18.00	\$1,350	\$12.00	\$900	\$30.00	\$2,250	\$0
6' Vinyl fence doble gates	1	EA	\$500.00	\$500	\$400.00	\$400	\$900.00	\$900	1	EA	\$500.00	\$500	\$400.00	\$400	\$900.00	\$900	\$0
Custom Benches Entry area benches: Two custom benches – 12' k	2	EA	\$3,500.00	\$7,000	\$1,500.00	\$3,000	\$5,000.00	\$10,000	2	EA	\$3,500.00	\$7,000	\$1,500.00	\$3,000	\$5,000.00	\$10,000	\$0
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Remove trees	6	EA		\$0	\$250.00	\$1,500	\$250.00	\$1,500	6	EA		\$0	\$250.00	\$1,500	\$250.00	\$1,500	\$0
arborist to evaluate the two existing trees	2	EA		\$0	\$600.00	\$1,200	\$600.00	\$1,200	2	EA		\$0	\$600.00	\$1,200	\$600.00	\$1,200	\$0
Stone curb alongside driveway – salvage and reuse existing stone curb; if additional curb is required, it shall match existing				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Gravel base beneath proposed northeast deck: 6" deep gravel bed beneath deck				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Landscaping				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Ornamental Trees				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Cercis canadensis 'Ace of Hearts' (Ace of Hearts Eastern Redbud)	1	EA	\$500.00	\$500	\$350.00	\$350	\$850.00	\$850	1	EA	\$500.00	\$500	\$350.00	\$350	\$850.00	\$850	\$0
Evergreen Trees	3	EA	\$450.00	\$1,350	\$350.00	\$1,050	\$800.00	\$2,400	3	EA	\$450.00	\$1,350	\$350.00	\$1,050	\$800.00	\$2,400	\$0
Ilex spp. Columnar Holly species				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Juniperus spp. Columnar Juniper species				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Deciduous & evergreen shrubs and groundcovers	50	EA	\$400.00	\$20,000	\$350.00	\$17,500	\$750.00	\$37,500	50	EA	\$400.00	\$20,000	\$350.00	\$17,500	\$750.00	\$37,500	\$0
Perennials and ornamental grasses	250	EA	\$45.00	\$11,250	\$35.00	\$8,750	\$80.00	\$20,000	250	EA	\$45.00	\$11,250	\$35.00	\$8,750	\$80.00	\$20,000	\$0
Watercourse buffer planting ? shrubs	50	EA	\$35.00	\$1,750	\$25.00	\$1,250	\$60.00	\$3,000	50	EA	\$35.00	\$1,750	\$25.00	\$1,250	\$60.00	\$3,000	\$0
Watercourse buffer planting ? grasses	200	EA	\$35.00	\$7,000	\$25.00	\$5,000	\$60.00	\$12,000	200	EA	\$35.00	\$7,000	\$25.00	\$5,000	\$60.00	\$12,000	\$0
Seed Mixes	1	LS	\$5,000.00	\$5,000	\$5,000.00	\$5,000	\$10,000.00	\$10,000	1	LS	\$5,000.00	\$5,000	\$5,000.00	\$5,000	\$10,000.00	\$10,000	\$0
Rain Gardens	1	LS	\$10,000.00	\$10,000	\$15,000.00	\$15,000	\$25,000.00	\$25,000	1	LS	\$10,000.00	\$10,000	\$15,000.00	\$15,000	\$25,000.00	\$25,000	\$0
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Total				\$159,232		\$658,933	\$0.00	\$817,125			\$0	\$162,078	\$0.00	\$588,868	\$0.00	\$750,946	(\$66,179)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

		5-Aug-15						5-Aug-15										
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount	
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT				
SITE WORK - BUILDING RELATED																		
				\$0		\$0										\$0		
01	Excavation for Storm Utility	220	CY		\$0	\$18.00	\$3,960	\$18.00	\$3,960							\$0		
02	Backfill and compaction for above	190	CY		\$0	\$15.00	\$2,850	\$15.00	\$2,850							\$0		
03	Excavate For addition at west side	603	CY		\$0	\$18.00	\$10,854	\$18.00	\$10,854							\$0		
04	Backfill and compaction for above	303	CY		\$0	\$15.00	\$4,545	\$15.00	\$4,545							\$0		
05	Excavation For new area	690	CY		\$0	\$18.00	\$12,420	\$18.00	\$12,420							\$0		
06	Excavation For new stairs	320	CY		\$0	\$25.00	\$8,000	\$25.00	\$8,000							\$0		
07	Hand Excavation For Lowered Slab	585	CY		\$0	\$40.00	\$23,400	\$40.00	\$23,400							\$0		
08	Backfill and compaction for above	150	CY		\$0	\$15.00	\$2,250	\$15.00	\$2,250							\$0		
09	Rain Garden excavation	123	CY		\$0	\$18.00	\$2,214	\$18.00	\$2,214							\$0		
10	Filter Fabric	2,900	SF	\$2.00	\$5,800	\$1.50	\$4,350	\$3.50	\$10,150							\$0		
11	Place topsoil	123	CY	\$28.00	\$3,444	\$12.00	\$1,476	\$40.00	\$4,920							\$0		
12	Place Mulch	20	CY	\$35.00	\$700	\$12.00	\$240	\$47.00	\$940							\$0		
13	Excavation at Flagstone Patio Area 1	630	CY		\$0	\$18.00	\$11,340	\$18.00	\$11,340							\$0		
14	Excavation at Basement	250	CY		\$0	\$18.00	\$4,500	\$18.00	\$4,500							\$0		
15	Excavation for pile caps	200	CY		\$0	\$18.00	\$3,600	\$18.00	\$3,600							\$0		
16	General Site Grading	16,274	SF		\$0	\$0.16	\$2,604	\$0.16	\$2,604							\$0		
17	General site backfill	20	CY	\$28.00	\$560	\$12.00	\$240	\$40.00	\$800							\$0		
					\$0		\$0	\$0.00	\$0							\$0		
Total					\$10,504		\$98,843	\$0.00	\$109,347							\$0		
03000 CONCRETE																		
					\$0		\$0	\$0.00	\$0							\$0		
	Structural concrete				\$0		\$0	\$0.00	\$0							\$0		
01	12" SLAB (grade level for additions)	6,938	SF	\$4.00	\$27,752	\$8.00	\$55,504	\$12.00	\$83,256	5,267	SF	\$4.00	\$21,068	\$8.00	\$42,136	\$12.00	\$63,204	(\$20,052)
02	Stairs at North side	24	LF	\$400.00	\$9,600	\$500.00	\$12,000	\$900.00	\$21,600		LF	\$400.00	\$0	\$500.00	\$0	\$900.00	\$0	(\$21,600)
03	Stairs by Elevator	96	LF	\$100.00	\$9,600	\$125.00	\$12,000	\$225.00	\$21,600		LF	\$100.00	\$9,600	\$125.00	\$12,000	\$225.00	\$21,600	\$0
04	Conc shear wall	1,480	SF	\$8.00	\$11,840	\$22.00	\$32,560	\$30.00	\$44,400	1,480	SF	\$8.00	\$11,840	\$22.00	\$32,560	\$30.00	\$44,400	\$0
05	Grade Beam	141	CY	\$115.00	\$16,215	\$500.00	\$70,500	\$615.00	\$86,715	70	CY	\$115.00	\$8,050	\$500.00	\$35,000	\$615.00	\$43,050	(\$43,665)
06	New Concrete beam 20"	180	LF	\$8.00	\$1,440	\$55.00	\$9,900	\$63.00	\$11,340	180	LF	\$8.00	\$1,440	\$55.00	\$9,900	\$63.00	\$11,340	\$0
07	New Found wall at new area	1,760	SF	\$8.00	\$14,080	\$22.00	\$38,720	\$30.00	\$52,800	704	SF	\$8.00	\$5,632	\$22.00	\$15,488	\$30.00	\$21,120	(\$31,680)
08	New Found wall footing at new area	15	CY	\$215.00	\$3,225	\$450.00	\$6,750	\$665.00	\$9,975	15	CY	\$215.00	\$3,225	\$450.00	\$6,750	\$665.00	\$9,975	\$0
09	New Conc cheek wall @ GB and NEW FND Wall below GB (176 LF x 5'-6" deep and 12" Thick)	968	SF	\$8.00	\$7,744	\$22.00	\$21,296	\$30.00	\$29,040	0	SF	\$8.00	\$0	\$22.00	\$0	\$30.00	\$0	(\$29,040)
	New Conc cheek wall @ GB and NEW FND Wall below GB (176 LF x 7'-2" deep and 28" Thick)	117	CY	\$200.00	\$23,400	\$800.00	\$93,600	\$1,000.00	\$117,000									
	Shroring for removal of existing foundation wall	1,760	SF	\$4.00	\$7,040	\$18.00	\$31,680	\$22.00	\$38,720									
10	New Retaining wall	940	SF	\$8.00	\$7,520	\$22.00	\$20,680	\$30.00	\$28,200	0	SF	\$8.00	\$0	\$22.00	\$0	\$30.00	\$0	(\$28,200)
11	PC-1 3' x 3' x 30"	2	CY	\$175.00	\$292	\$400.00	\$667	\$575.00	\$958	2	CY	\$175.00	\$292	\$400.00	\$667	\$575.00	\$958	\$0
12	PC-2 3' x 6' x 3'	40	CY	\$175.00	\$7,000	\$400.00	\$16,000	\$575.00	\$23,000	22	CY	\$175.00	\$3,850	\$400.00	\$8,800	\$575.00	\$12,650	(\$10,350)
13	PC-3 6'-2" x 6'-2" x 3'	4	CY	\$175.00	\$747	\$400.00	\$1,708	\$575.00	\$2,456	4	CY	\$175.00	\$747	\$400.00	\$1,708	\$575.00	\$2,456	\$0
14	Piles (As no information available for piles we assumed a budget, for 45 piles)	1	LS	\$350,000.00	\$350,000	\$0.00	\$0	\$350,000.00	\$350,000	1	LS	\$250,000.00	\$250,000	\$0.00	\$0	\$250,000.00	\$250,000	(\$100,000)
15	Underpinning Between existing and new addition	50	LF	\$300.00	\$15,000	\$200.00	\$10,000	\$500.00	\$25,000		LF	\$300.00	\$0	\$200.00	\$0	\$500.00	\$0	(\$25,000)
16	New lowered slab	2,227	SF	\$4.00	\$8,908	\$8.00	\$17,816	\$12.00	\$26,724		SF	\$4.00	\$0	\$8.00	\$0	\$12.00	\$0	(\$26,724)
17	New Slab at stairs	410	SF	\$4.00	\$1,640	\$8.00	\$3,280	\$12.00	\$4,920		SF	\$4.00	\$0	\$8.00	\$0	\$12.00	\$0	(\$4,920)
18	New Ramp	237	SF	\$12.00	\$2,844	\$35.00	\$8,295	\$47.00	\$11,139	26	SF	\$12.00	\$312	\$35.00	\$910	\$47.00	\$1,222	(\$9,917)
19	New foundation mat (at Cellar for Elevator)	12	CY	\$115.00	\$1,380	\$900.00	\$10,800	\$1,015.00	\$12,180	12	CY	\$115.00	\$1,380	\$900.00	\$10,800	\$1,015.00	\$12,180	\$0
20	Slab with metal deck and concrete	9,163	SF	\$5.00	\$45,815	\$8.00	\$73,304	\$13.00	\$119,119	5,961	SF	\$5.00	\$29,805	\$8.00	\$47,688	\$13.00	\$77,493	(\$41,626)
21	Place light weight	351	SF	\$4.00	\$1,404	\$8.00	\$2,808	\$12.00	\$4,212	351	SF	\$4.00	\$1,404	\$8.00	\$2,808	\$12.00	\$4,212	\$0
22	Infill slab with 8-1/2" conc and 4" ledge and dowels	56	SF	\$6.00	\$336	\$12.00	\$672	\$18.00	\$1,008	56	SF	\$6.00	\$336	\$12.00	\$672	\$18.00	\$1,008	\$0
23	Infill slab with metal deck and concrete	1,006	SF	\$4.00	\$4,024	\$8.00	\$8,048	\$12.00	\$12,072	1,006	SF	\$4.00	\$4,024	\$8.00	\$8,048	\$12.00	\$12,072	\$0
24	Sawcut slab for new openings	33	LF	\$0.50	\$17	\$6.00	\$198	\$6.50	\$215	33	LF	\$0.50	\$17	\$6.00	\$198	\$6.50	\$215	\$0
25	Remove slab for new openings	44	SF	\$0.50	\$22	\$3.00	\$132	\$3.50	\$154	44	SF	\$0.50	\$22	\$3.00	\$132	\$3.50	\$154	\$0
					\$0		\$0	\$0.00	\$0							\$0		
					\$0		\$0	\$0.00	\$0							\$0		
Total					\$578,885		\$558,918	\$0.00	\$1,137,803							\$0.00	\$589,309	(\$548,494)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

				5-Aug-15				5-Aug-15									
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
							\$0.00	\$0									\$0
04000 MASONRY							\$0.00	\$0									\$0
							\$0.00	\$0									\$0
01 Masonry Restoration & Cleaning (all facades and interior walls to remain)	36,860	GSF	\$1.25	\$46,075	\$1.75	\$64,505	\$3.00	\$110,580	35,271	GSF	\$1.25	\$44,089	\$1.75	\$61,724	\$3.00	\$105,813	(\$4,767)
02 For roof replacement A-G and M Repair cracks in the stucco and coat the walls with Thoroseal	1	LS	\$1,500.00	\$1,500	\$6,000.00	\$6,000	\$7,500.00	\$7,500	1	LS	\$1,500.00	\$1,500	\$6,000.00	\$6,000	\$7,500.00	\$7,500	\$0
03 At roofs I-K Repoint chimney and install new chimney caps	1	LS	\$6,000.00	\$6,000	\$14,000.00	\$14,000	\$20,000.00	\$20,000	1	LS	\$6,000.00	\$6,000	\$14,000.00	\$14,000	\$20,000.00	\$20,000	\$0
04 At roofs I-K Repair and repoint walls above slate roof areas	1	LS	\$6,000.00	\$6,000	\$14,000.00	\$14,000	\$20,000.00	\$20,000	1	LS	\$6,000.00	\$6,000	\$14,000.00	\$14,000	\$20,000.00	\$20,000	\$0
05 repairs to the exterior masonry facade walls below the roof	1	LS	\$10,000.00	\$10,000	\$20,000.00	\$20,000	\$30,000.00	\$30,000	1	LS	\$10,000.00	\$10,000	\$20,000.00	\$20,000	\$30,000.00	\$30,000	\$0
02 8" CMU for elevator shaft	1,600	SF	\$4.50	\$7,200	\$16.00	\$25,600	\$20.50	\$32,800	1,600	SF	\$4.50	\$7,200	\$16.00	\$25,600	\$20.50	\$32,800	\$0
01 Cut opening in masonry, install lintel	18	LF	\$0.50	\$9	\$6.00	\$108	\$6.50	\$117	18	LF	\$0.50	\$9	\$6.00	\$108	\$6.50	\$117	\$0
02 Replace limeston Lintel	52	LF	\$55.00	\$2,860	\$45.00	\$2,340	\$100.00	\$5,200	52	LF	\$55.00	\$2,860	\$45.00	\$2,340	\$100.00	\$5,200	\$0
																	\$0
																	\$0
Total				\$79,644		\$146,553	\$0.00	\$226,197			\$0.00	\$77,658	\$0.00	\$143,772	\$0.00	\$221,430	(\$4,767)
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
05000 METALS																	
STRUCTURAL STEEL:																	
Metal Fabrications																	
01 Structural Steel	20.00	Tn	\$2,000.00	\$40,000	\$2,500.00	\$50,000	\$4,500.00	\$90,000	13.00	Tn	\$2,000.00	\$26,000	\$2,500.00	\$32,500	\$4,500.00	\$58,500	(\$31,500)
Wood Deck Railing	105	LF	\$60.00	\$6,300	\$35.00	\$3,675	\$95.00	\$9,975	105	LF	\$60.00	\$6,300	\$35.00	\$3,675	\$95.00	\$9,975	
03 Metal Grating	667	SF	\$45.00	\$30,015	\$25.00	\$16,675	\$70.00	\$46,690	344	SF	\$45.00	\$15,480	\$25.00	\$8,600	\$70.00	\$24,080	(\$22,610)
Solar shading	162	LF	\$60.00	\$9,720	\$20.00	\$3,240	\$80.00	\$12,960	121	LF	\$60.00	\$60	\$20.00	\$20	\$80.00	\$9,680	(\$3,280)
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
Total				\$86,035		\$73,590	\$0.00	\$159,625			\$0.00	\$47,840	\$0.00	\$44,795	\$0.00	\$102,235	(\$57,390)
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
06000 WOOD AND PLASTIC																	
Architectural Woodwork																	
01 New 77" high shelving both floors (Furnished and Installed by Others)																	
02 Misc Cabinetry	22	LF	\$165.00	\$3,630	\$110.00	\$2,420	\$275.00	\$6,050	22	LF	\$165.00	\$3,630	\$110.00	\$2,420	\$275.00	\$6,050	
03 Receptionist Desk	36	LF	\$350.00	\$12,600	\$210.00	\$7,560	\$560.00	\$20,160	36	LF	\$350.00	\$12,600	\$210.00	\$7,560	\$560.00	\$20,160	
04 Miscellaneous blocking	1	LS	\$1,320.00	\$1,320	\$5,280.00	\$5,280	\$6,600.00	\$6,600	1	LS	\$1,320.00	\$1,320	\$5,280.00	\$5,280	\$6,600.00	\$6,600	
05 Wood deck	921	SF	\$6.00	\$5,526	\$18.00	\$16,578	\$24.00	\$22,104			\$6.00	\$0	\$18.00	\$0	\$24.00	\$0	(\$22,104)
06 Wood slat Deck Skirt	527	SF	\$3.00	\$1,581	\$6.80	\$3,584	\$9.80	\$5,165			\$3.00	\$0	\$6.80	\$0	\$9.80	\$0	(\$5,165)
07 Rough carpentry	36,860	GSF	\$0.50	\$18,430	\$1.00	\$36,860	\$1.50	\$55,290	35,271	GSF	\$0.50	\$17,636	\$1.00	\$35,271	\$1.50	\$52,907	(\$2,384)
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
				\$0		\$0	\$0.00	\$0			\$0	\$0	\$0	\$0.00	\$0		\$0
Total				\$43,087		\$72,282	\$0.00	\$115,369			\$0.00	\$35,186	\$0.00	\$50,531	\$0.00	\$85,717	(\$29,652)

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

		5-Aug-15						5-Aug-15									
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
07000 THERMAL AND MOISTURE PROTECTION				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
THERMAL & MOISTURE				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
Water Proofing				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
01 Water proofing for new foundation walls @ New Basement Walls	1,760	SF	\$4.00	\$7,040	\$4.00	\$7,040	\$8.00	\$14,080	0	SF	\$4.00	\$0	\$4.00	\$0	\$8.00	(\$14,080)	
02 Water proofing for New Basement Slab	2,906	SF	\$4.00	\$11,624	\$4.00	\$11,624	\$8.00	\$23,248	2,906	SF	\$4.00	\$11,624	\$4.00	\$11,624	\$8.00	\$23,248	\$0
03 Water proofing for foundation walls Lowered Slabs	2,227	SF	\$4.00	\$8,908	\$6.00	\$13,362	\$10.00	\$22,270	704	SF	\$4.00	\$2,816	\$6.00	\$4,224	\$10.00	\$7,040	(\$15,230)
		LS		\$0		\$0	\$0.00	\$0		LS	\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
		LS		\$0		\$0	\$0.00	\$0		LS	\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
Roofing				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
01 new Kemper liquid roofing including rigid tapered insulation to main roof & canopy roof		SF	\$8.00	\$0	\$12.00	\$0	\$20.00	\$0		SF	\$8.00	\$0	\$12.00	\$0	\$20.00	\$0	
02 Remove and Replace Roofs A-G and M	11,440	SF	\$10.04	\$114,900	\$15.00	\$171,600	\$25.04	\$286,500	11,440	SF	\$10.04	\$114,900	\$15.00	\$171,600	\$25.04	\$286,500	\$0
03 Remove and replace Slate Roof I - K	7,800	SF	\$35.00	\$273,000	\$25.00	\$195,000	\$60.00	\$468,000	7,800	SF	\$35.00	\$273,000	\$25.00	\$195,000	\$60.00	\$468,000	\$0
04 Install new 3 pipe snow guards	1	LS	\$8,000.00	\$8,000	\$12,000.00	\$12,000	\$20,000.00	\$20,000	1	LS	\$8,000.00	\$8,000	\$12,000.00	\$12,000	\$20,000.00	\$20,000	\$0
05 Remove and replace Skylight	1	LS	\$18,000.00	\$18,000	\$7,000.00	\$7,000	\$25,000.00	\$25,000	1	LS	\$18,000.00	\$18,000	\$7,000.00	\$7,000	\$25,000.00	\$25,000	\$0
06 Option A (Community Facility & Reading Gallery)	8,800	SF	\$7.00	\$61,600	\$8.00	\$70,400	\$15.00	\$132,000	5,176	SF	\$7.00	\$36,232	\$8.00	\$41,408	\$15.00	\$77,640	(\$54,360)
07 Green Roof X-Factor	8,800	SF	\$5.00	\$44,000	\$8.00	\$70,400	\$13.00	\$114,400	5,176	SF	\$5.00	\$25,880	\$8.00	\$41,408	\$13.00	\$67,288	(\$47,112)
08 New Stair & Elevator Core	850	SF	\$8.00	\$6,800	\$12.00	\$10,200	\$20.00	\$17,000	850	SF	\$8.00	\$6,800	\$12.00	\$10,200	\$20.00	\$17,000	\$0
09 New coping	217	LF	\$28.00	\$6,076	\$18.00	\$3,906	\$46.00	\$9,982	217	LF	\$28.00	\$6,076	\$18.00	\$3,906	\$46.00	\$9,982	\$0
10 Metal Fascia Canopy Trim	100	LF	\$22.00	\$2,200	\$12.00	\$1,200	\$34.00	\$3,400	100	LF	\$22.00	\$2,200	\$12.00	\$1,200	\$34.00	\$3,400	\$0
11 New drain at roof and canopy				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
12 New traffic pads at roof.	1	LS	\$600.00	\$600	\$900.00	\$900	\$1,500.00	\$1,500	1	LS	\$600.00	\$600	\$900.00	\$900	\$1,500.00	\$1,500	\$0
13 Fireproofing for structural steel	7,240	sf	\$1.00	\$7,240	\$2.00	\$14,480	\$3.00	\$21,720	5,176	sf	\$1.00	\$5,176	\$2.00	\$10,352	\$3.00	\$15,528	(\$6,192)
14 Fire stop	1	LS	\$880.00	\$880	\$3,520.00	\$3,520	\$4,400.00	\$4,400	1	LS	\$880.00	\$880	\$3,520.00	\$3,520	\$4,400.00	\$4,400	\$0
15 Joint Sealer	36,860	GSF	\$0.10	\$3,686	\$0.50	\$18,430	\$0.60	\$22,116	35,271	GSF	\$0.10	\$3,527	\$0.50	\$17,636	\$0.60	\$21,163	(\$953)
Exterior Facades																	
Cement Fiber Board Paneling	2,013	SF	\$8.00	\$16,104	\$12.00	\$24,156	\$20.00	\$40,260	1,500	SF	\$8.00	\$12,000	\$12.00	\$18,000	\$20.00	\$30,000	(\$10,260)
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
Total				\$590,658		\$635,218	\$0.00	\$1,225,876			\$0.00	\$527,711	\$0.00	\$549,978	\$0.00	\$1,077,688	(\$148,187)
08000 DOORS AND WINDOWS				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
DOORS, FRAMES & HARDWARE:				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
Entrances & Storefronts				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
01 New storefront and entry doors from vestibule A	4,054	SF	\$54.00	\$218,916	\$36.00	\$145,944	\$90.00	\$364,860	4,054	SF	\$54.00	\$218,916	\$36.00	\$145,944	\$90.00	\$364,860	\$0
05 X-tra cost for doors	14	PR	\$2,100.00	\$29,400	\$1,400.00	\$19,600	\$3,500.00	\$49,000	14	PR	\$2,100.00	\$29,400	\$1,400.00	\$19,600	\$3,500.00	\$49,000	\$0
02 Interior Glazing	1,500	SF	\$45.00	\$67,500	\$25.00	\$37,500	\$70.00	\$105,000	1,070	SF	\$45.00	\$48,150	\$25.00	\$26,750	\$70.00	\$74,900	(\$30,100)
03 Interior Glazing Single Door	8	EA	\$2,500.00	\$20,000	\$900.00	\$7,200	\$3,400.00	\$27,200	2	EA	\$2,500.00	\$5,000	\$900.00	\$1,800	\$3,400.00	\$6,800	(\$20,400)
04 Interior Glazing Double Door	2	EA	\$5,000.00	\$10,000	\$1,800.00	\$3,600	\$6,800.00	\$13,600	1	EA	\$5,000.00	\$5,000	\$1,800.00	\$1,800	\$6,800.00	\$6,800	(\$6,800)
06 New fire rated glass stair doors in south stair		PR	\$3,000.00	\$0	\$2,000.00	\$0	\$5,000.00	\$0		PR	\$3,000.00	\$0	\$2,000.00	\$0	\$5,000.00	\$0	
WINDOWS :				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0	
01 New 2'-9" high clerestory windows	125	SF	\$54.00	\$6,750	\$36.00	\$4,500	\$90.00	\$11,250	125	SF	\$54.00	\$6,750	\$36.00	\$4,500	\$90.00	\$11,250	\$0
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
Hollow metal Doors				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
01 Single	34	EA	\$1,800.00	\$61,200	\$500.00	\$17,000	\$2,300.00	\$78,200	15	EA	\$1,800.00	\$27,000	\$500.00	\$7,500	\$2,300.00	\$34,500	(\$43,700)
02 Double	6	EA	\$2,500.00	\$15,000	\$900.00	\$5,400	\$3,400.00	\$20,400	5	EA	\$2,500.00	\$12,500	\$900.00	\$4,500	\$3,400.00	\$17,000	(\$3,400)
03 Closet Doors	9	EA	\$900.00	\$8,100	\$500.00	\$4,500	\$1,400.00	\$12,600	6	EA	\$900.00	\$5,400	\$500.00	\$3,000	\$1,400.00	\$8,400	(\$4,200)
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
SKYLIGHTS :				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
01 Sky light @ 2 Stairs		SF	\$60.00	\$0	\$40.00	\$0	\$100.00	\$0		SF	\$60.00	\$0	\$40.00	\$0	\$100.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
GLAZING :				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
01 New glazed partition system 2nd floor		SF	\$18.00	\$0	\$12.00	\$0	\$30.00	\$0		SF	\$18.00	\$0	\$12.00	\$0	\$30.00	\$0	
02 X-tra cost for doors		EA	\$600.00	\$0	\$400.00	\$0	\$1,000.00	\$0		EA	\$600.00	\$0	\$400.00	\$0	\$1,000.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	
Total				\$436,866		\$245,244	\$0.00	\$682,110			\$0.00	\$358,116	\$0.00	\$215,394	\$0.00	\$573,510	(\$108,600)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

								5-Aug-15										5-Aug-15	
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount		
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					
09000 FINISHES				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
DRYWALL:				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Plaster & GWB				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 New interior partitions where shown	17,140	SF	\$4.00	\$68,560	\$6.00	\$102,840	\$10.00	\$171,400	9,370	SF	\$4.00	\$37,480	\$6.00	\$56,220	\$10.00	\$93,700	(\$77,700)		
Ceilings				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 New ACT ceiling A	14,946	SF	\$4.50	\$67,257	\$5.50	\$82,203	\$10.00	\$149,460	8,572	SF	\$4.50	\$38,574	\$5.50	\$47,146	\$10.00	\$85,720	(\$63,740)		
02 New ACT ceiling A (Double Height Space)		SF		\$0		\$0	\$0.00	\$0	2,784	SF	\$6.00	\$16,704	\$8.00	\$22,272	\$14.00	\$38,976			
03 New GWB ceiling	2,241	SF	\$4.00	\$8,964	\$6.00	\$13,446	\$10.00	\$22,410	2,101	SF	\$4.00	\$8,404	\$6.00	\$12,606	\$10.00	\$21,010	(\$1,400)		
04 New GWB Soffit (Double Height)	2,170	SF	\$6.00	\$13,020	\$12.00	\$26,040	\$18.00	\$39,060	2,170	SF	\$6.00	\$13,020	\$12.00	\$26,040	\$18.00	\$39,060	\$0		
05 Acoustic Wood Ceiling panels	7,303	SF	\$8.00	\$58,424	\$8.00	\$58,424	\$16.00	\$116,848	5,517	SF	\$8.00	\$44,136	\$8.00	\$44,136	\$16.00	\$88,272	(\$28,576)		
06 Vaulted Ceiling	1,574	SF	\$9.00	\$14,166	\$8.00	\$12,592	\$17.00	\$26,758	1,574	SF	\$9.00	\$14,166	\$8.00	\$12,592	\$17.00	\$26,758	\$0		
07 Gable ACT	1,188	SF	\$9.00	\$10,692	\$8.00	\$9,504	\$17.00	\$20,196	1,188	SF	\$9.00	\$10,692	\$8.00	\$9,504	\$17.00	\$20,196	\$0		
Flooring				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 Carpet	22,491	SF	\$3.20	\$71,971	\$2.80	\$62,975	\$6.00	\$134,946	17,584	SF	\$3.20	\$56,269	\$2.80	\$49,235	\$6.00	\$105,504	(\$29,442)		
X cost for raised flooring	14,852	SF	\$12.00	\$178,224	\$18.00	\$267,336	\$30.00	\$445,560	14,852	SF	\$12.00	\$178,224	\$18.00	\$267,336	\$30.00	\$445,560	\$0		
02 Floor tile	965	SF	\$8.00	\$7,720	\$6.00	\$5,790	\$14.00	\$13,510	1,093	SF	\$8.00	\$8,744	\$6.00	\$6,558	\$14.00	\$15,302	\$1,792		
03 Wall Tile	4,160	SF	\$6.00	\$24,960	\$6.00	\$24,960	\$12.00	\$49,920	4,970	SF	\$6.00	\$29,820	\$6.00	\$29,820	\$12.00	\$59,640	\$9,720		
04 Porcelain Tile	1,408	SF	\$8.00	\$11,264	\$10.00	\$14,080	\$18.00	\$25,344	920	SF	\$8.00	\$7,360	\$10.00	\$9,200	\$18.00	\$16,560	(\$8,784)		
05 Linoleum	2,949	SF	\$4.50	\$13,271	\$2.00	\$5,898	\$6.50	\$19,169	4,747	SF	\$4.50	\$21,362	\$2.00	\$9,494	\$6.50	\$30,856	\$11,687		
06 Sealed Concrete	2,159	SF	\$0.50	\$1,080	\$1.50	\$3,239	\$2.00	\$4,318	2,355	SF	\$0.50	\$1,178	\$1.50	\$3,533	\$2.00	\$4,710	\$392		
Paints & Coatings				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 Paint new partitions	55,030	SF	\$0.30	\$16,509	\$1.20	\$66,036	\$1.50	\$82,545	49,120	SF	\$0.30	\$14,736	\$1.20	\$58,944	\$1.50	\$73,680	(\$8,865)		
02 Paint new GWB ceilings	4,411	SF	\$0.30	\$1,323	\$1.20	\$5,293	\$1.50	\$6,617	2,101	SF	\$0.30	\$630	\$1.20	\$2,521	\$1.50	\$3,152	(\$3,465)		
03 Paint new lintels		LF	\$2.00	\$0	\$3.00	\$0	\$5.00	\$0		LF	\$2.00	\$0	\$3.00	\$5.00	\$0	\$0	\$0		
04 Miscellaneous patching/finishing	1	LS	\$2,000.00	\$2,000	\$3,000.00	\$3,000	\$5,000.00	\$5,000	1	LS	\$2,000.00	\$2,000	\$3,000.00	\$3,000	\$5,000.00	\$5,000	\$0		
05 For roof replacement A-G and M Scrape prime and paint the gas line and steel dunnage	1	LS	\$500.00	\$500	\$2,500.00	\$2,500	\$3,000.00	\$3,000	1	LS	\$500.00	\$500	\$2,500.00	\$2,500	\$3,000.00	\$3,000	\$0		
06 Misc. Finishes	36,860	GSF	\$0.50	\$18,430	\$1.50	\$55,290	\$2.00	\$73,720	35,271	GSF	\$0.50	\$17,636	\$1.50	\$52,907	\$2.00	\$70,542	(\$3,178)		
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Total				\$588,335		\$821,446	\$0.00	\$1,409,780			\$0.00	\$521,634	\$0.00	\$725,563	\$0.00	\$1,247,197	(\$162,583)		
10000 SPECIALTIES				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
TOILET & BATH ACCESSORIES:				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 Bathroom Partitions	6	EA	\$250.00	\$1,500	\$300.00	\$1,800	\$550.00	\$3,300	6	EA	\$250.00	\$1,500	\$300.00	\$1,800	\$550.00	\$3,300	\$0		
02 Urinal Screen	2	ea	\$150.00	\$300	\$200.00	\$400	\$350.00	\$700	2	ea	\$150.00	\$300	\$200.00	\$400	\$350.00	\$700	\$0		
03 Vanity counter	12	LF	\$150.00	\$1,800	\$200.00	\$2,400	\$350.00	\$4,200	12	LF	\$150.00	\$1,800	\$200.00	\$2,400	\$350.00	\$4,200	\$0		
04 Bathroom Accesssories	1	LS	\$4,000.00	\$4,000	\$2,000.00	\$2,000	\$6,000.00	\$6,000	1	LS	\$4,000.00	\$4,000	\$2,000.00	\$2,000	\$6,000.00	\$6,000	\$0		
05 Rolling Partition	380	SF	\$50.00	\$19,000	\$35.00	\$13,300	\$85.00	\$32,300	380	SF	\$50.00	\$19,000	\$35.00	\$13,300	\$85.00	\$32,300	\$0		
06 Signage	36,860	GSF	\$0.25	\$9,215	\$0.75	\$27,645	\$1.00	\$36,860	35,271	GSF	\$0.25	\$8,818	\$0.75	\$26,453	\$1.00	\$35,271	(\$1,589)		
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Total				\$35,815		\$47,545	\$0.00	\$83,360			\$0.00	\$35,418	\$0.00	\$46,353	\$0.00	\$81,771	(\$1,589)		
11000 EQUIPMENT				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Total				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0		
12000 FURNISHING				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Furnishings				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Total				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0		
14000 CONVEYING EQUIPMENT				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
ELEVATORS				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
01 Passenger elevator	1	EA	\$90,000.00	\$90,000	\$60,000.00	\$60,000	\$150,000.00	\$150,000	1	EA	\$90,000.00	\$90,000	\$60,000.00	\$60,000	\$150,000.00	\$150,000	\$0		
				\$0		\$0	\$0.00	\$0			\$0.00	\$0	\$0.00	\$0	\$0	\$0			
Total				\$90,000		\$60,000	\$0.00	\$150,000			\$0.00	\$90,000	\$0.00	\$60,000	\$0.00	\$150,000	\$0		

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

		5-Aug-15							5-Aug-15							Delta	
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
15300 FIRE PROTECTION																	
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
01	446	EA	\$200.00	\$89,200	\$350.00	\$156,100	\$550.00	\$245,300	391	EA	\$200.00	\$78,200	\$350.00	\$136,850	\$550.00	\$215,050	(\$30,250)
02	1	LS	\$9,000.00	\$9,000	\$6,000.00	\$6,000	\$15,000.00	\$15,000	1	LS	\$9,000.00	\$9,000	\$6,000.00	\$6,000	\$15,000.00	\$15,000	\$0
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
MISCELLANEOUS																	
01	36,860	GSF		\$0		\$0	\$0.00	\$0	35,271	GSF		\$0		\$0.00	\$0	\$0	\$0
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Total Fire Protection Works				\$98,200		\$162,100	\$0.00	\$260,300			\$0.00	\$87,200	\$0.00	\$142,850	\$0.00	\$230,050	(\$30,250)
15400 PLUMBING																	
Domestic Water Piping																	
01	25	fixture	\$800.00	\$20,000	\$1,200.00	\$30,000	\$2,000.00	\$50,000	21	fixture	\$800.00	\$16,800	\$1,200.00	\$25,200	\$2,000.00	\$42,000	(\$8,000)
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Sanitary Waste & Vent Piping																	
01	25	fixture	\$800.00	\$20,000	\$1,200.00	\$30,000	\$2,000.00	\$50,000	21	fixture	\$800.00	\$16,800	\$1,200.00	\$25,200	\$2,000.00	\$42,000	(\$8,000)
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Storm Drain Piping																	
01	10	EA	\$2,200.00	\$22,000	\$3,300.00	\$33,000	\$5,500.00	\$55,000	8	EA	\$2,200.00	\$17,600	\$3,300.00	\$26,400	\$5,500.00	\$44,000	(\$11,000)
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Natural Gas Piping																	
01	500	LF	\$28.00	\$14,000	\$42.00	\$21,000	\$70.00	\$35,000	500	LF	\$28.00	\$14,000	\$42.00	\$21,000	\$70.00	\$35,000	\$0
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Plumbing Fixtures																	
01	12	EA	\$962.50	\$11,550	\$787.50	\$9,450	\$1,750.00	\$21,000	10	EA	\$962.50	\$9,625	\$787.50	\$7,875	\$1,750.00	\$17,500	(\$3,500)
02	2	EA	\$990.00	\$1,980	\$810.00	\$1,620	\$1,800.00	\$3,600	2	EA	\$990.00	\$1,980	\$810.00	\$1,620	\$1,800.00	\$3,600	\$0
03	10	EA	\$660.00	\$6,600	\$540.00	\$5,400	\$1,200.00	\$12,000	8	EA	\$660.00	\$5,280	\$540.00	\$4,320	\$1,200.00	\$9,600	(\$2,400)
04	1	EA	\$1,925.00	\$1,925	\$1,575.00	\$1,575	\$3,500.00	\$3,500	1	EA	\$1,925.00	\$1,925	\$1,575.00	\$1,575	\$3,500.00	\$3,500	\$0
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Plumbing Equipment																	
01	1	EA	\$17,500.00	\$17,500	\$7,500.00	\$7,500	\$25,000.00	\$25,000	1	EA	\$17,500.00	\$17,500	\$7,500.00	\$7,500	\$25,000.00	\$25,000	\$0
02	1	LS	\$7,000.00	\$7,000	\$3,000.00	\$3,000	\$10,000.00	\$10,000	1	LS	\$7,000.00	\$7,000	\$3,000.00	\$3,000	\$10,000.00	\$10,000	\$0
				\$0.00		\$0.00	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Miscellaneous																	
01	1	LS		\$0	\$18,720.00	\$18,720	\$18,720.00	\$18,720	1	LS		\$0	\$18,720.00	\$18,720	\$18,720.00	\$18,720	\$0
02	1	LS		\$0	\$10,000.00	\$10,000	\$10,000.00	\$10,000	1	LS		\$0	\$10,000.00	\$10,000	\$10,000.00	\$10,000	\$0
03	1	LS	\$1,560.00	\$1,560	\$6,240.00	\$6,240	\$7,800.00	\$7,800	1	LS	\$1,560.00	\$1,560	\$6,240.00	\$6,240	\$7,800.00	\$7,800	\$0
04	1	LS		\$0	\$18,097.20	\$18,097	\$18,097.20	\$18,097	1	LS		\$0	\$16,120.00	\$16,120	\$16,120.00	\$16,120	(\$1,977)
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	\$0
Total Plumbing Works				\$124,115		\$195,602	\$0.00	\$319,717			\$0.00	\$110,070	\$0.00	\$174,770	\$0.00	\$284,840	(\$34,877)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

5-Aug-15								5-Aug-15								Delta Amount	
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE		TOTAL AMOUNT
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
15500 HVAC				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Meeting Rooms 1 & 2				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Demolition	1	ls		\$0	9360	\$9,360	\$9,360.00	\$9,360	1	ls	\$0.00	\$0	9360	\$9,360	\$9,360.00	\$9,360	\$0
02 New Ductwork, Insulation, Liner	5,800	cfm	\$6.60	\$38,280	\$5.40	\$31,320	\$12.00	\$69,600	5,800	cfm	\$6.60	\$38,280	\$5.40	\$31,320	\$12.00	\$69,600	\$0
03 VAV Boxes	4	ea	\$687.50	\$2,750	\$562.50	\$2,250	\$1,250.00	\$5,000	4	ea	\$687.50	\$2,750	\$562.50	\$2,250	\$1,250.00	\$5,000	\$0
04 Air Devices	32	ea	\$110.00	\$3,520	\$90.00	\$2,880	\$200.00	\$6,400	32	ea	\$110.00	\$3,520	\$90.00	\$2,880	\$200.00	\$6,400	\$0
05 Automatic Controls, Integration	1	ls	\$9,625.00	\$9,625	\$7,875.00	\$7,875	\$17,500.00	\$17,500	1	ls	\$9,625.00	\$9,625	\$7,875.00	\$7,875	\$17,500.00	\$17,500	\$0
06 Testing & Balancing	1	ls		\$0	4500	\$4,500	\$4,500.00	\$4,500	1	ls	\$0.00	\$0	4500	\$4,500	\$4,500.00	\$4,500	\$0
07 Project Management, Cleanup & Protection	1	ls		\$0	5618	\$5,618	\$5,618.00	\$5,618	1	ls	\$0.00	\$0	5618	\$5,618	\$5,618.00	\$5,618	\$0
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Meeting Rooms 3 and 4 and Corridor Addition, and Basement Book Sorting				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Packaged Rooftop Unit, 3,200 cfm	1	ea	\$13,420.00	\$13,420	\$10,980.00	\$10,980	\$24,400.00	\$24,400	1	ea	\$13,420.00	\$13,420	\$10,980.00	\$10,980	\$24,400.00	\$24,400	\$0
02 New Ductwork, Insulation, Liner	3,200	cfm	\$8.25	\$26,400	\$6.75	\$21,600	\$15.00	\$48,000	3,200	cfm	\$8.25	\$26,400	\$6.75	\$21,600	\$15.00	\$48,000	\$0
03 VAV Boxes	3	ea	\$605.00	\$1,815	\$495.00	\$1,485	\$1,100.00	\$3,300	3	ea	\$605.00	\$1,815	\$495.00	\$1,485	\$1,100.00	\$3,300	\$0
04 Air Devices	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	\$0
05 Finned tube radiation	40	lf	\$68.75	\$2,750	\$56.25	\$2,250	\$125.00	\$5,000	40	lf	\$68.75	\$2,750	\$56.25	\$2,250	\$125.00	\$5,000	\$0
06 Cabinet Unit Heaters	2	ea	\$825.00	\$1,650	\$675.00	\$1,350	\$1,500.00	\$3,000	2	ea	\$825.00	\$1,650	\$675.00	\$1,350	\$1,500.00	\$3,000	\$0
07 Hot Water Piping	300	lf	\$33.00	\$9,900	\$27.00	\$8,100	\$60.00	\$18,000	300	lf	\$33.00	\$9,900	\$27.00	\$8,100	\$60.00	\$18,000	\$0
08 Automatic Controls, Integration	1	ls	\$11,550.00	\$11,550	\$9,450.00	\$9,450	\$21,000.00	\$21,000	1	ls	\$11,550.00	\$11,550	\$9,450.00	\$9,450	\$21,000.00	\$21,000	\$0
09 Testing & Balancing	1	ls		\$0	4350	\$4,350	\$4,350.00	\$4,350	1	ls	\$0.00	\$0	4350	\$4,350	\$4,350.00	\$4,350	\$0
10 Project Management, Cleanup & Protection	1	ls		\$0	6552.5	\$6,553	\$6,552.50	\$6,553	1	ls	\$0.00	\$0	6552.5	\$6,553	\$6,552.50	\$6,553	\$0
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Lobby and Café Addition				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Demolition	1	ls		\$0	3120	\$3,120	\$3,120.00	\$3,120	1	ls	\$0.00	\$0	3120	\$3,120	\$3,120.00	\$3,120	\$0
02 New Ductwork, Insulation, Liner	1,500	lbs	\$8.25	\$12,375	\$6.75	\$10,125	\$15.00	\$22,500	1,500	lbs	\$8.25	\$12,375	\$6.75	\$10,125	\$15.00	\$22,500	\$0
03 Air Devices	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	\$0
04 Finned tube radiation	40	lf	\$68.75	\$2,750	\$56.25	\$2,250	\$125.00	\$5,000	40	lf	\$68.75	\$2,750	\$56.25	\$2,250	\$125.00	\$5,000	\$0
05 Cabinet Unit Heaters	1	ea	\$825.00	\$825	\$675.00	\$675	\$1,500.00	\$1,500	1	ea	\$825.00	\$825	\$675.00	\$675	\$1,500.00	\$1,500	\$0
06 Hot Water Piping	300	lf	\$33.00	\$9,900	\$27.00	\$8,100	\$60.00	\$18,000	300	lf	\$33.00	\$9,900	\$27.00	\$8,100	\$60.00	\$18,000	\$0
07 Automatic Controls, Integration	1	ls	\$7,700.00	\$7,700	\$6,300.00	\$6,300	\$14,000.00	\$14,000	1	ls	\$7,700.00	\$7,700	\$6,300.00	\$6,300	\$14,000.00	\$14,000	\$0
08 Testing & Balancing	1	ls		\$0	3750	\$3,750	\$3,750.00	\$3,750	1	ls	\$0.00	\$0	3750	\$3,750	\$3,750.00	\$3,750	\$0
09 Project Management, Cleanup & Protection	1	ls		\$0	3593.5	\$3,594	\$3,593.50	\$3,594	1	ls	\$0.00	\$0	3593.5	\$3,594	\$3,593.50	\$3,594	\$0
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Young Adults/Reading Gallery/Study Room Additions				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Packaged Rooftop Unit, 7,500 cfm	1	ea	\$25,547.50	\$25,548	\$20,902.50	\$20,903	\$46,450.00	\$46,450	1	ea	\$16,000.00	\$16,000	\$13,000.00	\$13,000	\$29,000.00	\$29,000	(\$46,450)
02 Packaged Rooftop Unit, 4,000 cfm				\$0		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
03 New Ductwork, Insulation, Liner	7,500	cfm	\$8.25	\$61,875	\$6.75	\$50,625	\$15.00	\$112,500	4,000	cfm	\$8.25	\$33,000	\$6.75	\$27,000	\$15.00	\$60,000	(\$52,500)
04 VAV Boxes	7	ea	\$687.50	\$4,813	\$562.50	\$3,938	\$1,250.00	\$8,750	5	ea	\$687.50	\$3,438	\$562.50	\$2,813	\$1,250.00	\$6,250	(\$2,500)
05 Air Devices	60	ea	\$110.00	\$6,600	\$90.00	\$5,400	\$200.00	\$12,000	40	ea	\$110.00	\$4,400	\$90.00	\$3,600	\$200.00	\$8,000	(\$4,000)
06 Finned tube radiation	70	lf	\$68.75	\$4,813	\$56.25	\$3,938	\$125.00	\$8,750	70	lf	\$68.75	\$4,813	\$56.25	\$3,938	\$125.00	\$8,750	\$0
07 Unit Heaters	4	ea	\$495.00	\$1,980	\$405.00	\$1,620	\$900.00	\$3,600	2	ea	\$495.00	\$990	\$405.00	\$810	\$900.00	\$1,800	(\$1,800)
08 Hot Water Piping	450	lf	\$33.00	\$14,850	\$27.00	\$12,150	\$60.00	\$27,000	400	lf	\$33.00	\$13,200	\$27.00	\$10,800	\$60.00	\$24,000	(\$3,000)
09 Automatic Controls, Integration	1	ls	\$20,075.00	\$20,075	\$16,425.00	\$16,425	\$36,500.00	\$36,500	1	ls	\$13,000.00	\$13,000	\$16,500.00	\$16,500	\$29,500.00	\$29,500	(\$7,000)
10 Testing & Balancing	1	ls		\$0	9450	\$9,450	\$9,450.00	\$9,450	1	ls	\$0.00	\$0	7350	\$7,350	\$7,350.00	\$7,350	(\$2,100)
11 Project Management, Cleanup & Protection	1	ls		\$0	13250	\$13,250	\$13,250.00	\$13,250	1	ls	\$0.00	\$0	8700	\$8,700	\$8,700.00	\$8,700	(\$4,550)
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
New Toilet Rooms				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Exhaust Fans	2	ea	\$1,375.00	\$2,750	\$1,125.00	\$2,250	\$2,500.00	\$5,000	2	ea	\$1,375.00	\$2,750	\$1,125.00	\$2,250	\$2,500.00	\$5,000	\$0
02 New Ductwork, Insulation, Liner	1,000	cfm	\$8.25	\$8,250	\$6.75	\$6,750	\$15.00	\$15,000	1,000	cfm	\$8.25	\$8,250	\$6.75	\$6,750	\$15.00	\$15,000	\$0
03 Air Devices	4	ea	\$110.00	\$440	\$90.00	\$360	\$200.00	\$800	4	ea	\$110.00	\$440	\$90.00	\$360	\$200.00	\$800	\$0
04 Testing & Balancing	1	ls		\$0	1200	\$1,200	\$1,200.00	\$1,200	1	ls	\$0.00	\$0	1200	\$1,200	\$1,200.00	\$1,200	\$0
05 Project Management, Cleanup & Protection	1	ls		\$0	1100	\$1,100	\$1,100.00	\$1,100	1	ls	\$0.00	\$0	1100	\$1,100	\$1,100.00	\$1,100	\$0
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
Techno Room and Home Office				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	
01 Packaged Rooftop Unit, 1,000 cfm	1	ea	\$6,666.00	\$6,666	\$5,454.00	\$5,454	\$12,120.00	\$12,120	1	ea	\$6,666.00	\$6,666	\$5,454.00	\$5,454	\$12,120.00	\$12,120	\$0
02 New Ductwork, Insulation, Liner	1,000	cfm	\$8.25	\$8,250	\$6.75	\$6,750	\$15.00	\$15,000	1,000	cfm	\$8.25	\$8,250	\$6.75	\$6,750	\$15.00	\$15,000	\$0
03 Air Devices	10	ea	\$110.00	\$1,100	\$90.00	\$900	\$200.00	\$2,000	10	ea	\$110.00	\$1,100	\$90.00	\$900	\$200.00	\$2,000	\$0
04 Automatic Controls, Integration	1	ls	\$4,125.00	\$4,125	\$3,375.00	\$3,375	\$7,500.00	\$7,500	1	ls	\$4,125.00	\$4,125	\$3,375.00	\$3,375	\$7,500.00	\$7,500	\$0
05 Testing & Balancing	1	ls		\$0	2250	\$2,250	\$2,250.00	\$2,250	1	ls	\$0.00	\$0	2250	\$2,250	\$2,250.00	\$2,250	\$0
06 Project Management, Cleanup & Protection	1	ls		\$0	1943.5	\$1,944	\$1,943.50	\$1,944	1	ls	\$0.00	\$0	1943.5	\$1,944	\$1,943.50	\$1,944	\$0
				\$0.00		\$0	\$0.00	\$0				\$0		\$0.00	\$0	\$0	

SCHEMATIC DESIGN COST ESTIMATE
 SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
			5-Aug-15		5-Aug-15				
Existing areas with Heavy Renovation in original library (Quiet Reading, Study)									
01 Modification to existing - allowance	1	ls	\$13,750.00	\$13,750	\$11,250.00	\$11,250	\$25,000.00	\$25,000	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Existing areas with Heavy Renovation in 1973 Addition (Reference, Collection)									
01 Demolition	1	ls	\$0.00	\$0	6240	\$6,240	\$6,240.00	\$6,240	\$0
02 New Ductwork, Insulation, Liner	5,000	cfm	\$6.60	\$33,000	\$5.40	\$27,000	\$12.00	\$60,000	\$0
03 Air Devices	40	ea	\$110.00	\$4,400	\$90.00	\$3,600	\$200.00	\$8,000	\$0
04 Automatic Controls, Integration	1	ls	\$5,500.00	\$5,500	\$4,500.00	\$4,500	\$10,000.00	\$10,000	\$0
05 Testing & Balancing	1	ls	\$0.00	\$0	4500	\$4,500	\$4,500.00	\$4,500	\$0
06 Project Management, Cleanup & Protection	1	ls	\$0.00	\$0	4437	\$4,437	\$4,437.00	\$4,437	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Book Sorting (Included above)			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Local History, Basement Storage and Utility, New Elevator Core)									
01 New Ductwork, Insulation, Liner	4,000	cfm	\$6.60	\$26,400	\$5.40	\$21,600	\$12.00	\$48,000	\$0
02 Air Devices	32	ea	\$110.00	\$3,520	\$90.00	\$2,880	\$200.00	\$6,400	\$0
03 Zone Control Dampers	4	ea	\$550.00	\$2,200	\$450.00	\$1,800	\$1,000.00	\$4,000	\$0
04 Automatic Controls, Integration	1	ls	\$5,500.00	\$5,500	\$4,500.00	\$4,500	\$10,000.00	\$10,000	\$0
05 Testing & Balancing	1	ls	\$2,805.00	\$2,805	\$2,295.00	\$2,295	\$5,100.00	\$5,100	\$0
06 Project Management, Cleanup & Protection	1	ls	\$0.00	\$0	3675	\$3,675	\$3,675.00	\$3,675	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Staff Stations Room									
01 Packaged Rooftop Unit, 2,500 cfm	1	ea	\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
02 New Ductwork, Insulation, Liner	2,500	cfm	\$8.25	\$20,625	\$6.75	\$16,875	\$15.00	\$37,500	\$0
03 Air Devices	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	\$0
04 Automatic Controls, Integration	1	ls	\$5,500.00	\$5,500	\$4,500.00	\$4,500	\$10,000.00	\$10,000	\$0
05 Testing & Balancing	1	ls	\$0.00	\$0	3000	\$3,000	\$3,000.00	\$3,000	\$0
06 Project Management, Cleanup & Protection	1	ls	\$0.00	\$0	2725	\$2,725	\$2,725.00	\$2,725	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
2nd Floor Offices, Elevator Core									
01 Demolition	1	ls	\$0.00	\$0	6240	\$6,240	\$6,240.00	\$6,240	\$0
02 Packaged Rooftop Unit, 2,000 cfm	1	ea	\$10,010.00	\$10,010	\$8,190.00	\$8,190	\$18,200.00	\$18,200	\$0
03 New Ductwork, Insulation, Liner	2,000	cfm	\$8.25	\$16,500	\$6.75	\$13,500	\$15.00	\$30,000	\$0
04 VAV Boxes	5	ea	\$687.50	\$3,438	\$562.50	\$2,813	\$1,250.00	\$6,250	\$0
05 Air Devices	20	ea	\$110.00	\$2,200	\$90.00	\$1,800	\$200.00	\$4,000	\$0
06 Automatic Controls, Integration	1	ls	\$11,000.00	\$11,000	\$9,000.00	\$9,000	\$20,000.00	\$20,000	\$0
07 Testing & Balancing	1	ls	\$0.00	\$0	3750	\$3,750	\$3,750.00	\$3,750	\$0
08 Project Management, Cleanup & Protection	1	ls	\$0.00	\$0	4422	\$4,422	\$4,422.00	\$4,422	\$0
			\$0.00	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Total HVAC				\$500,291		\$518,356		\$1,018,647	(\$94,900)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

		5-Aug-15							5-Aug-15								
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
16000 ELECTRICAL				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
LIGHTING FIXTURES				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
01 lighting fixtures	36,860	SF		\$0		\$0	\$0.00	\$0	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$0	
07 Front of House 70%	25,802	GSF		\$0		\$0	\$20.00	\$516,040	24,690	GSF		\$0.00	\$0	\$0.00	\$0	\$493,794	
07 Back of House 30%	11,058	GSF		\$0		\$0	\$10.00	\$110,580	10,581	GSF		\$0.00	\$0	\$0.00	\$0	\$105,813	
08 Lighting Circuitry				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
09 Branch Circuitry	36,860	SF		\$0		\$0	\$5.00	\$184,300	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$176,355	
10 Lighting Controls	36,860	SF		\$0		\$0	\$2.00	\$73,720	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$70,542	
11 Wiring Devices & Lighting Controls	36,860	SF		\$0		\$0	\$3.00	\$110,580	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$105,813	
12				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
13				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
16 Power Circuitry				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
17 2" Emt, 4 3/0	400	LF	\$14.20	\$5,680	\$51.16	\$20,464	\$65.36	\$26,144	400	LF	\$14.20	\$5,680	\$51.16	\$20,464	\$65.36	\$26,144	\$0
18 4" Rigid, 4 600 Mcm	300	LF	\$48.95	\$14,685	\$112.00	\$33,600	\$160.95	\$48,285	300	LF	\$48.95	\$14,685	\$112.00	\$33,600	\$160.95	\$48,285	\$0
19 Recon Exist Loads to new MDB	1	LS	\$3,000.00	\$3,000	\$10,146.00	\$10,146	\$13,146.00	\$13,146	1	LS	\$3,000.00	\$3,000	\$10,146.00	\$10,146	\$13,146.00	\$13,146	\$0
21				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
12 Power Equipment				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
13 Recon to Exist 800 Amp Service End Box	1	EA	\$500.00	\$500	\$2,004.20	\$2,004	\$2,504.20	\$2,504	1	EA	\$500.00	\$500	\$2,004.20	\$2,004	\$2,504.20	\$2,504	\$0
14 Autotransfer Sw 800A, Service-rated	1	LS	\$13,596.00	\$13,596	\$8,410.20	\$8,410	\$22,006.20	\$22,006	1	LS	\$13,596.00	\$13,596	\$8,410.20	\$8,410	\$22,006.20	\$22,006	\$0
15 800 Amp Main Switchboard	1	EA	\$18,000.00	\$18,000	\$12,330.00	\$12,330	\$30,330.00	\$30,330	1	EA	\$18,000.00	\$18,000	\$12,330.00	\$12,330	\$30,330.00	\$30,330	\$0
16 225 Amp Panel Board	2	EA	\$2,425.00	\$4,850	\$4,364.65	\$8,729	\$6,789.65	\$13,579	2	EA	\$2,425.00	\$4,850	\$4,364.65	\$8,729	\$6,789.65	\$13,579	\$0
17 250 Kw Emergency Generator, Gas, WP	1	EA	\$80,750.00	\$80,750	\$33,968.30	\$33,968	\$114,718.30	\$114,718	1	EA	\$80,750.00	\$80,750	\$33,968.30	\$33,968	\$114,718.30	\$114,718	\$0
18 800 Amp Encl Ckt Brkr	1	EA	\$6,150.00	\$6,150	\$4,043.10	\$4,043	\$10,193.10	\$10,193	1	EA	\$6,150.00	\$6,150	\$4,043.10	\$4,043	\$10,193.10	\$10,193	\$0
19 Subtotal				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
20 Phtovoltaic Panels	2,935	SF	\$40.00	\$117,400	\$70.00	\$205,450	\$110.00	\$322,850				\$0.00	\$0	\$70.00	\$205,450	\$322,850	
21				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
12 Special Systems				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
13 Fire Alarm	36,860	SF		\$0		\$0	\$4.00	\$147,440	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$141,084	
14 Telecommunications Systems & Wiring	36,860	SF		\$0		\$0	\$4.00	\$147,440	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$141,084	
15 Intrusion System	36,860	SF		\$0		\$0	\$1.25	\$46,075	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$44,089	
16 CCTV System	36,860	SF		\$0		\$0	\$1.25	\$46,075	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$44,089	
17 Lightning Protection and Grounding	36,860	SF		\$0		\$0	\$0.50	\$18,430	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$17,636	
18 A/V System Eqpt and Wiring	1	LS		\$0		\$0	\$0	\$0	1	LS		\$0.00	\$0	\$0.00	\$0	\$0	
19 A/V System Electrical Rough-in	36,860	SF		\$0		\$0	\$1.00	\$36,860	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$35,271	
20				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
21 Temp Power and Lighting	36,860	SF		\$0		\$0	\$0.75	\$27,645	35,271	SF		\$0.00	\$0	\$0.00	\$0	\$26,453	
22 Misc Demo	26,825	SF		\$0		\$0	\$0.63	\$16,803	28,848	SF		\$0.00	\$0	\$0.00	\$0	\$18,070	
				\$0		\$0	\$0.00	\$0				\$0.00	\$0	\$0.00	\$0	\$0	
Total Electrical Works				\$264,611		\$339,145		\$2,085,744				\$0.00	\$147,211	\$0.00	\$133,695	\$1,700,999	(\$384,746)

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

		5-Aug-15						5-Aug-15									
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
AV Package				\$0		\$0	\$0.00	\$0					\$0		\$0	\$0	
DISPLAY SYSTEMS				\$0		\$0	\$0.00	\$0					\$0		\$0	\$0	
Scott Room				\$0		\$0	\$0.00	\$0					\$0		\$0	\$0	
Data/Video WUXGA DLP Projector; 7,500 Lumens w/ HDbaseT Input	2	EA		\$0		\$0	\$10,995.00	\$21,990	2	EA		\$0		\$0	\$10,995.00	\$21,990	\$0
Data/Video Projector Motorized Zoom Lens	2	EA		\$0		\$0	\$2,995.00	\$5,990	2	EA		\$0		\$0	\$2,995.00	\$5,990	\$0
Data/Video WUXGA LCD Projector; 12,000 Lumens	1	EA		\$0		\$0	\$19,995.00	\$19,995	1	EA		\$0		\$0	\$19,995.00	\$19,995	\$0
Data/Video Projector Motorized Zoom Lens	1	EA		\$0		\$0	\$2,995.00	\$2,995	1	EA		\$0		\$0	\$2,995.00	\$2,995	\$0
Fine-Tune Video Projector Mount	3	EA		\$0		\$0	\$252.00	\$756	3	EA		\$0		\$0	\$252.00	\$756	\$0
Front Projection Screen, Medium 16:10 Aspect Ratio w/ ceiling	2	EA		\$0		\$0	\$3,327.00	\$6,654	2	EA		\$0		\$0	\$3,327.00	\$6,654	\$0
Front Projection Screen, Large 16:10 Aspect Ratio w/ ceiling	1	EA		\$0		\$0	\$3,363.00	\$3,363	1	EA		\$0		\$0	\$3,363.00	\$3,363	\$0
				\$0		\$0								\$0		\$0	
Divisible Meeting Room				\$0		\$0		\$0						\$0		\$0	
Data/Video WUXGA DLP Projector; 7,500 Lumens w/ HDbaseT Input	3	EA		\$0		\$0	\$10,995.00	\$32,985	3	EA		\$0		\$0	\$10,995.00	\$32,985	\$0
Data/Video Projector Motorized Zoom Lens	3	EA		\$0		\$0	\$2,995.00	\$8,985	3	EA		\$0		\$0	\$2,995.00	\$8,985	\$0
Fine-Tune Video Projector Mount	3	EA		\$0		\$0	\$252.00	\$756	3	EA		\$0		\$0	\$252.00	\$756	\$0
Front Projection Screen, Medium 16:10 Aspect Ratio w/ ceiling	2	EA		\$0		\$0	\$3,327.00	\$6,654	2	EA		\$0		\$0	\$3,327.00	\$6,654	\$0
Front Projection Screen, Large 16:10 Aspect Ratio w/ ceiling	1	EA		\$0		\$0	\$3,363.00	\$3,363	1	EA		\$0		\$0	\$3,363.00	\$3,363	\$0
				\$0		\$0		\$0						\$0		\$0	
Children's Room				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 65"	1	EA		\$0		\$0	\$6,728.00	\$6,728	1	EA		\$0		\$0	\$6,728.00	\$6,728	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
Flat Panel Monitor Side Attachable Pair of Speakers	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
				\$0		\$0		\$0						\$0		\$0	
Young Adult				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 65"	1	EA		\$0		\$0	\$6,728.00	\$6,728	1	EA		\$0		\$0	\$6,728.00	\$6,728	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
Flat Panel Monitor Side Attachable Pair of Speakers	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
				\$0		\$0		\$0						\$0		\$0	
Lobby & General Collection Area				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 65"	1	EA		\$0		\$0	\$6,728.00	\$6,728	1	EA		\$0		\$0	\$6,728.00	\$6,728	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
LED Backlit Data/Video Flat Panel Display Monitor, 46" w/ HDbaseT	5	EA		\$0		\$0	\$2,475.00	\$12,375	5	EA		\$0		\$0	\$2,475.00	\$12,375	\$0
Flat Panel Display Monitor Ceiling Mount	5	EA		\$0		\$0	\$349.00	\$1,745	5	EA		\$0		\$0	\$349.00	\$1,745	\$0
				\$0		\$0		\$0						\$0		\$0	
Technology Room				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 65"	1	EA		\$0		\$0	\$6,728.00	\$6,728	1	EA		\$0		\$0	\$6,728.00	\$6,728	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
Flat Panel Monitor Side Attachable Pair of Speakers	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
				\$0		\$0		\$0						\$0		\$0	
Study Room				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 65"	1	EA		\$0		\$0	\$3,378.00	\$3,378	1	EA		\$0		\$0	\$3,378.00	\$3,378	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
Flat Panel Monitor Side Attachable Pair of Speakers	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
				\$0		\$0		\$0						\$0		\$0	
Large Study Room				\$0		\$0		\$0						\$0		\$0	
LED Backlit Data/Video Flat Panel Display Monitor, 80" w/ HDbaseT	1	EA		\$0		\$0	\$9,678.00	\$9,678	1	EA		\$0		\$0	\$9,678.00	\$9,678	\$0
Flat Panel Display Fixed Wall Mount	1	EA		\$0		\$0	\$200.00	\$200	1	EA		\$0		\$0	\$200.00	\$200	\$0
Flat Panel Monitor Side Attachable Pair of Speakers	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
				\$0		\$0		\$0						\$0		\$0	
				\$0		\$0		\$0						\$0		\$0	

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

5-Aug-15

5-Aug-15

DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
AUDIO SYSTEMS				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0	\$0
Scott Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0	\$0
Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated	16	EA		\$0		\$0	\$579.00	\$9,264	16	EA		\$0		\$0	\$579.00	\$9,264	\$0
Surface Mounted Performance Speaker, 8" DC Driver	4	EA		\$0		\$0	\$660.00	\$2,640	4	EA		\$0		\$0	\$660.00	\$2,640	\$0
Surface Mounted Performance Speaker, 8" DC Driver; Stage Monitor	2	EA		\$0		\$0	\$660.00	\$1,320	2	EA		\$0		\$0	\$660.00	\$1,320	\$0
Surface Mounted Performance Speaker, 8" DC & 8" LF Driver	3	EA		\$0		\$0	\$1,188.00	\$3,564	3	EA		\$0		\$0	\$1,188.00	\$3,564	\$0
Performance Audio Subwoofer, Dual 12"; Bandpass	1	EA		\$0		\$0	\$2,048.00	\$2,048	1	EA		\$0		\$0	\$2,048.00	\$2,048	\$0
12x8 Audio DSP Processing System w/AEC & Dante	3	EA		\$0		\$0	\$3,299.00	\$9,897	3	EA		\$0		\$0	\$3,299.00	\$9,897	\$0
2 Line VoIP Interface Card	1	EA		\$0		\$0	\$579.00	\$579	1	EA		\$0		\$0	\$579.00	\$579	\$0
7.1 High-Definition Professional Surround Sound Processor	1	EA		\$0		\$0	\$2,500.00	\$2,500	1	EA		\$0		\$0	\$2,500.00	\$2,500	\$0
Two Channel 70V Amplifier - 200 Watts Per Channel	1	EA		\$0		\$0	\$1,290.00	\$1,290	1	EA		\$0		\$0	\$1,290.00	\$1,290	\$0
Stereo Amplifier - 400 Watts Per Channel	5	EA		\$0		\$0	\$1,290.00	\$6,450	5	EA		\$0		\$0	\$1,290.00	\$6,450	\$0
Two Channel Amplifier; 1500 Watts Per Channel (70V or 4/8ohm)	1	EA		\$0		\$0	\$3,600.00	\$3,600	1	EA		\$0		\$0	\$3,600.00	\$3,600	\$0
Eight Channel Access Point Transceiver w/ Dante	2	EA		\$0		\$0	\$4,260.00	\$8,520	2	EA		\$0		\$0	\$4,260.00	\$8,520	\$0
Four/Eight Microphone Networked Charging Station	3	EA		\$0		\$0	\$2,220.00	\$6,660	3	EA		\$0		\$0	\$2,220.00	\$6,660	\$0
Boundary Wireless Microphone Transmitter; Cardioid	16	EA		\$0		\$0	\$789.00	\$12,624	16	EA		\$0		\$0	\$789.00	\$12,624	\$0
Hybrid Bodypack Transmitter	1	EA		\$698.00		\$0	\$698.00	\$698	1	EA		\$0		\$0	\$698.00	\$698	\$0
Earset Microphone w/Cardioid Polar Pattern & TA4F Connector	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
Handheld Wireless Microphone Transmitter; Beta 58A	1	EA		\$0		\$0	\$806.00	\$806	1	EA		\$0		\$0	\$806.00	\$806	\$0
Microphone, Lectern Gooseneck Cardioid Condenser RF	1	EA		\$0		\$0	\$350.00	\$350	1	EA		\$0		\$0	\$350.00	\$350	\$0
Shock Mount for Table Gooseneck Microphone	1	EA		\$0		\$0	\$35.00	\$35	1	EA		\$0		\$0	\$35.00	\$35	\$0
Digital Audio Mixing Console	1	EA		\$0		\$0	\$6,000.00	\$6,000	1	EA		\$0		\$0	\$6,000.00	\$6,000	\$0
Dante I/O card for Digital Audio Production Mixer	1	EA		\$0		\$0	\$600.00	\$600	1	EA		\$0		\$0	\$600.00	\$600	\$0
16 Channel Dante Digital Network Remote I/O Unit	1	EA		\$0		\$0	\$4,800.00	\$4,800	1	EA		\$0		\$0	\$4,800.00	\$4,800	\$0
Various Microphones & Stands	1	EA		\$0		\$0	\$5,000.00	\$5,000	1	EA		\$0		\$0	\$5,000.00	\$5,000	\$0
Assistive Listening Emitter	2	EA		\$0		\$0	\$2,000.00	\$4,000	2	EA		\$0		\$0	\$2,000.00	\$4,000	\$0
Assistive Listening Wideband Modulator; 2 Channel	2	EA		\$0		\$0	\$900.00	\$1,800	2	EA		\$0		\$0	\$900.00	\$1,800	\$0
Assistive Listening Single Channel Receiver	6	EA		\$0		\$0	\$150.00	\$900	6	EA		\$0		\$0	\$150.00	\$900	\$0
Assistive Listening Charging Unit for 10 Receivers	1	EA		\$0		\$0	\$300.00	\$300	1	EA		\$0		\$0	\$300.00	\$300	\$0
Assistive Listening 2-Channel Bodypack Receiver with Induction Neck	2	EA		\$0		\$0	\$375.00	\$750	2	EA		\$0		\$0	\$375.00	\$750	\$0
				\$0		\$0		\$0					\$0.00	\$0		\$0	\$0
Divisible Meeting Room				\$0		\$0		\$0					\$0.00	\$0		\$0	\$0
Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated	12	EA		\$0		\$0	\$579.00	\$6,948	12	EA		\$0		\$0	\$579.00	\$6,948	\$0
12x8 Audio DSP Processing System w/AEC & Dante	2	EA		\$0		\$0	\$3,299.00	\$6,598	2	EA		\$0		\$0	\$3,299.00	\$6,598	\$0
2 Line VoIP Interface Card	1	EA		\$0		\$0	\$579.00	\$579	1	EA		\$0		\$0	\$579.00	\$579	\$0
Two Channel Amplifier; 1500 Watts Per Channel (70V or 4/8ohm)	1	EA		\$0		\$0	\$1,290.00	\$1,290	1	EA		\$0		\$0	\$1,290.00	\$1,290	\$0
Eight Channel Access Point Transceiver w/ Dante	2	EA		\$0		\$0	\$4,260.00	\$8,520	2	EA		\$0		\$0	\$4,260.00	\$8,520	\$0
Four/Eight Microphone Networked Charging Station	2	EA		\$0		\$0	\$2,220.00	\$4,440	2	EA		\$0		\$0	\$2,220.00	\$4,440	\$0
Boundary Wireless Microphone Transmitter; Cardioid	12	EA		\$0		\$0	\$789.00	\$9,468	12	EA		\$0		\$0	\$789.00	\$9,468	\$0
Handheld Wireless Microphone Transmitter; Beta 58A	2	EA		\$0		\$0	\$806.00	\$1,612	2	EA		\$0		\$0	\$806.00	\$1,612	\$0
Assistive Listening Emitter	1	EA		\$0		\$0	\$2,000.00	\$2,000	1	EA		\$0		\$0	\$2,000.00	\$2,000	\$0
Assistive Listening Wideband Modulator; 2 Channel	1	EA		\$0		\$0	\$900.00	\$900	1	EA		\$0		\$0	\$900.00	\$900	\$0
Assistive Listening Single Channel Receiver	2	EA		\$0		\$0	\$150.00	\$300	2	EA		\$0		\$0	\$150.00	\$300	\$0
Assistive Listening Charging Unit for 10 Receivers	1	EA		\$0		\$0	\$300.00	\$300	1	EA		\$0		\$0	\$300.00	\$300	\$0
Assistive Listening 2-Channel Bodypack Receiver with Induction Neck	2	EA		\$0		\$0	\$375.00	\$750	2	EA		\$0		\$0	\$375.00	\$750	\$0
				\$0		\$0		\$0					\$0.00	\$0		\$0	\$0

SCHEMATIC DESIGN COST ESTIMATE
 SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
 54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

5-Aug-15									5-Aug-15									Delta Amount
DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT		
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT				
Children's Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0	\$0	
Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated	6	EA		\$0		\$0	\$579.00	\$3,474	6	EA		\$0.00	\$0		\$0.00	\$0	\$579.00	\$3,474
In-Wall Definition Speaker, Three 6.5" DC Drivers	5	EA		\$0		\$0	\$1,309.00	\$6,545	5	EA		\$0.00	\$0		\$0.00	\$0	\$1,309.00	\$6,545
In-Wall Definition Subwoofer Two 10"	1	EA		\$0		\$0	\$1,769.00	\$1,769	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,769.00	\$1,769
In-Wall Definition Speaker Pre Install Frame	6	EA		\$0		\$0	\$169.00	\$1,014	6	EA		\$0.00	\$0		\$0.00	\$0	\$169.00	\$1,014
12x8 Audio DSP Processing System w/Dante	1	EA		\$0		\$0	\$2,969.00	\$2,969	1	EA		\$0.00	\$0		\$0.00	\$0	\$2,969.00	\$2,969
7.2 Channel Surround Sound Receiver w/ Dolby Atmos Processing	1			\$0		\$0	\$1,500.00	\$1,500	1			\$0.00	\$0		\$0.00	\$0	\$1,500.00	\$1,500
70V Amplifier - 40 Watts	2			\$0		\$0	\$450.00	\$900	2			\$0.00	\$0		\$0.00	\$0	\$450.00	\$900
Stereo Amplifier - 400 Watts Per Channel	1			\$0		\$0	\$1,290.00	\$1,290	1			\$0.00	\$0		\$0.00	\$0	\$1,290.00	\$1,290
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Young Adult				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated	6	EA		\$0		\$0	\$579.00	\$3,474	6	EA		\$0.00	\$0		\$0.00	\$0	\$579.00	\$3,474
In-Wall Definition Speaker, Three 6.5" DC Drivers	5	EA		\$0		\$0	\$1,309.00	\$6,545	5	EA		\$0.00	\$0		\$0.00	\$0	\$1,309.00	\$6,545
In-Wall Definition Subwoofer Two 10"	1	EA		\$0		\$0	\$1,769.00	\$1,769	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,769.00	\$1,769
In-Wall Definition Speaker Pre Install Frame	6	EA		\$0		\$0	\$169.00	\$1,014	6	EA		\$0.00	\$0		\$0.00	\$0	\$169.00	\$1,014
12x8 Audio DSP Processing System w/Dante	1	EA		\$0		\$0	\$2,969.00	\$2,969	1	EA		\$0.00	\$0		\$0.00	\$0	\$2,969.00	\$2,969
7.2 Channel Surround Sound Receiver w/ Dolby Atmos Processing	1			\$0		\$0	\$1,500.00	\$1,500	1			\$0.00	\$0		\$0.00	\$0	\$1,500.00	\$1,500
70V Amplifier - 40 Watts	2			\$0		\$0	\$450.00	\$900	2			\$0.00	\$0		\$0.00	\$0	\$450.00	\$900
Stereo Amplifier - 400 Watts Per Channel	1			\$0		\$0	\$1,290.00	\$1,290	1			\$0.00	\$0		\$0.00	\$0	\$1,290.00	\$1,290
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Technology Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated	8	EA		\$0		\$0	\$579.00	\$4,632	8	EA		\$0.00	\$0		\$0.00	\$0	\$579.00	\$4,632
12x8 Audio DSP Processing System w/Dante	1	EA		\$0		\$0	\$2,969.00	\$2,969	1	EA		\$0.00	\$0		\$0.00	\$0	\$2,969.00	\$2,969
70V Amplifier - 200 Watts	1	EA		\$0		\$0	\$690.00	\$690	1	EA		\$0.00	\$0		\$0.00	\$0	\$690.00	\$690
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
VIDEO SYSTEMS				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Scott Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media Matrix Switcher; 16 x 16 w/ Redundant Power Supply	1	EA		\$0		\$0	\$9,800.00	\$9,800	1	EA		\$0.00	\$0		\$0.00	\$0	\$9,800.00	\$9,800
8G+ Input Card for Digital Media Matrix Switcher w/Down-Mixing	4	EA		\$0		\$0	\$1,300.00	\$5,200	4	EA		\$0.00	\$0		\$0.00	\$0	\$1,300.00	\$5,200
4K HDMI Input Card for Digital Media Matrix Switcher	7	EA		\$0		\$0	\$800.00	\$5,600	7	EA		\$0.00	\$0		\$0.00	\$0	\$800.00	\$5,600
2 HDMI Output Card for Digital Media Matrix Switcher	2	EA		\$0		\$0	\$700.00	\$1,400	2	EA		\$0.00	\$0		\$0.00	\$0	\$700.00	\$1,400
2 DM 4K 8G+ Output Card for Digital Media Matrix Switcher	6	EA		\$0		\$0	\$1,300.00	\$7,800	6	EA		\$0.00	\$0		\$0.00	\$0	\$1,300.00	\$7,800
Wall Plate DigitalMedia 8G+ Transmitter	4	EA		\$0		\$0	\$1,400.00	\$5,600	4	EA		\$0.00	\$0		\$0.00	\$0	\$1,400.00	\$5,600
Wall Mounted PTZ Camera; RoboSHOT 30 QUSB w/CATx Extension	2	EA		\$0		\$0	\$6,695.00	\$13,390	2	EA		\$0.00	\$0		\$0.00	\$0	\$6,695.00	\$13,390
Soft Codec AV Bridge	2	EA		\$0		\$0	\$1,499.00	\$2,998	2	EA		\$0.00	\$0		\$0.00	\$0	\$1,499.00	\$2,998
DVD/Bluray/CD Player, with RS-232 Control	1	EA		\$0		\$0	\$1,000.00	\$1,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,000.00	\$1,000
Wireless Presentation Gateway	2	EA		\$0		\$0	\$1,600.00	\$3,200	2	EA		\$0.00	\$0		\$0.00	\$0	\$1,600.00	\$3,200
24-Port Gigabit Ethernet Switch w/PoE	1	EA		\$0		\$0	\$475.00	\$475	1	EA		\$0.00	\$0		\$0.00	\$0	\$475.00	\$475
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Divisible Meeting Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media Matrix Switcher; 16 x 16 w/ Redundant Power Supply	1	EA		\$0		\$0	\$9,800.00	\$9,800	1	EA		\$0.00	\$0		\$0.00	\$0	\$9,800.00	\$9,800
8G+ Input Card for Digital Media Matrix Switcher w/Down-Mixing	4	EA		\$0		\$0	\$1,300.00	\$5,200	4	EA		\$0.00	\$0		\$0.00	\$0	\$1,300.00	\$5,200
4K HDMI Input Card for Digital Media Matrix Switcher	5	EA		\$0		\$0	\$800.00	\$4,000	5	EA		\$0.00	\$0		\$0.00	\$0	\$800.00	\$4,000
2 HDMI Output Card for Digital Media Matrix Switcher	2	EA		\$0		\$0	\$700.00	\$1,400	2	EA		\$0.00	\$0		\$0.00	\$0	\$700.00	\$1,400
2 DM 4K 8G+ Output Card for Digital Media Matrix Switcher	2	EA		\$0		\$0	\$1,300.00	\$2,600	2	EA		\$0.00	\$0		\$0.00	\$0	\$1,300.00	\$2,600
Wall Plate DigitalMedia 8G+ Transmitter	4	EA		\$0		\$0	\$1,400.00	\$5,600	4	EA		\$0.00	\$0		\$0.00	\$0	\$1,400.00	\$5,600
Wall Mounted PTZ Camera; RoboSHOT 30 QUSB w/CATx Extension	2	EA		\$0		\$0	\$6,695.00	\$13,390	2	EA		\$0.00	\$0		\$0.00	\$0	\$6,695.00	\$13,390
Soft Codec AV Bridge	2	EA		\$0		\$0	\$1,499.00	\$2,998	2	EA		\$0.00	\$0		\$0.00	\$0	\$1,499.00	\$2,998
Wireless Presentation Gateway	2	EA		\$0		\$0	\$1,600.00	\$3,200	2	EA		\$0.00	\$0		\$0.00	\$0	\$1,600.00	\$3,200
24-Port Gigabit Ethernet Switch w/PoE	1	EA		\$0		\$0	\$475.00	\$475	1	EA		\$0.00	\$0		\$0.00	\$0	\$475.00	\$475
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Children's Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media System Switcher 5 x 2	1	EA		\$0		\$0	\$5,000.00	\$5,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$5,000.00	\$5,000
Wall Plate DigitalMedia 8G+ Transmitter	1	EA		\$0		\$0	\$1,400.00	\$1,400	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,400.00	\$1,400
DVD/Bluray/CD Player, with RS-232 Control	1	EA		\$0		\$0	\$1,000.00	\$1,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,000.00	\$1,000
Streaming Set Top Box with Airplay	1	EA		\$0		\$0	\$99.00	\$99	1	EA		\$0.00	\$0		\$0.00	\$0	\$99.00	\$99
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Young Adult				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media System Switcher 5 x 2	1	EA		\$0		\$0	\$5,000.00	\$5,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$5,000.00	\$5,000
Wall Plate DigitalMedia 8G+ Transmitter	1	EA		\$0		\$0	\$1,400.00	\$1,400	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,400.00	\$1,400
DVD/Bluray/CD Player, with RS-232 Control	1	EA		\$0		\$0	\$1,000.00	\$1,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,000.00	\$1,000
Wireless Presentation Gateway	1	EA		\$0		\$0	\$1,600.00	\$1,600	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,600.00	\$1,600
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Technology Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media System Switcher 5 x 2	1	EA		\$0		\$0	\$5,000.00	\$5,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$5,000.00	\$5,000
Wall Plate DigitalMedia 8G+ Transmitter	1	EA		\$0		\$0	\$1,400.00	\$1,400	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,400.00	\$1,400
Wireless Presentation Gateway	1	EA		\$0		\$0	\$1,600.00	\$1,600	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,600.00	\$1,600
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Study Room				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0
Digital Media System Switcher 5 x 2	1	EA		\$0		\$0	\$5,000.00	\$5,000	1	EA		\$0.00	\$0		\$0.00	\$0	\$5,000.00	\$5,000
Wall Plate DigitalMedia 8G+ Transmitter	1	EA		\$0		\$0	\$1,300.00	\$1,300	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,300.00	\$1,300
Wireless Presentation Gateway	1	EA		\$0		\$0	\$1,600.00	\$1,600	1	EA		\$0.00	\$0		\$0.00	\$0	\$1,600.00	\$1,600
				\$0		\$0		\$0				\$0.00	\$0		\$0.00	\$0		\$0

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

DESCRIPTION	QUANTITY	UNIT	5-Aug-15				TOTAL AMOUNT
			MATERIAL		LABOR		
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT	
Large Study Room				\$0		\$0	\$0
Digital Media System Switcher 5 x 2	1	EA		\$0		\$5,000.00	\$5,000
DigitalMedia 8G+ Transmitter 201	1	EA		\$0		\$1,300.00	\$1,300
Wireless Presentation Gateway	1	EA		\$0		\$1,600.00	\$1,600
				\$0			\$0
				\$0			\$0
				\$0			\$0
CONTROL SYSTEMS				\$0			\$0
Scott Room				\$0			\$0
Integrated Control System	1	EA		\$0		\$5,300.00	\$5,300
Control System Touch Panel, 10.1"	2	EA		\$0		\$2,400.00	\$4,800
Control System Programming	1	EA		\$0		\$5,000.00	\$5,000
				\$0			\$0
Divisible Meeting Room				\$0			\$0
Integrated Control System	1	EA		\$0		\$5,300.00	\$5,300
Control System Touch Panel, 10.1"	1	EA		\$0		\$2,400.00	\$2,400
Control System Programming	1	EA		\$0		\$2,500.00	\$2,500
				\$0			\$0
Children's Room				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$500.00	\$500
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
Young Adult				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$500.00	\$500
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
Lobby & General Collection Area				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$450.00	\$450
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
Technology Room				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$500.00	\$500
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
Study Room				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$450.00	\$450
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
Large Study Room				\$0			\$0
Media Presentation Button Panel	1	EA		\$0		\$450.00	\$450
Control System Programming	1	EA		\$0		\$1,000.00	\$1,000
				\$0			\$0
				\$0			\$0
MISCELLANEOUS EQUIPMENT AND SYSTEMS				\$0			\$0
Scott Room				\$0			\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$5,000.00	\$5,000
Audiovisual Equipment Rack; 44 RU x 26" Deep	2	EA		\$0		\$1,200.00	\$2,400
Audiovisual Equipment Rack; Side Panels, Casters, Fan &	2	EA		\$0		\$800.00	\$1,600
Surge Suppressor/Power Distribution	2	EA		\$0		\$719.00	\$1,438
USB 2.0 CATx Extender Transmitter	2	EA		\$0		\$650.00	\$1,300
USB 2.0 CATx Extender Receiver	2	EA		\$0		\$650.00	\$1,300
Non-Equipment Cost	1	EA		\$0		\$97,576.00	\$97,576
END USER DISCOUNT ESTIMATE	1	EA		\$0		(\$24,394.00)	(\$24,394)
				\$0			\$0
Divisible Meeting Room				\$0			\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$5,000.00	\$5,000
Audiovisual Equipment Rack; 44 RU x 26" Deep	1	EA		\$0		\$1,200.00	\$1,200
Audiovisual Equipment Rack; Side Panels, Casters, Fan &	1	EA		\$0		\$800.00	\$800
Surge Suppressor/Power Distribution	1	EA		\$0		\$719.00	\$719
USB 2.0 CATx Extender Transmitter	2	EA		\$0		\$650.00	\$1,300
USB 2.0 CATx Extender Receiver	2	EA		\$0		\$650.00	\$1,300
Non-Equipment Cost	1	EA		\$0		\$66,252.00	\$66,252
END USER DISCOUNT ESTIMATE	1	EA		\$0		(\$16,563.00)	(\$16,563)
				\$0			\$0
Children's Room				\$0			\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$500.00	\$500
Audiovisual Equipment Rack; 12 Rack Unit High for Millwork	2	EA		\$0		\$600.00	\$1,200
Surge Suppressor/Power Distribution w/Remote On	2	EA		\$0		\$689.00	\$1,378
Non-Equipment Cost	1	EA		\$0		\$15,626.00	\$15,626
END USER DISCOUNT ESTIMATE	1	EA		\$0		(\$3,907.00)	(\$3,907)
				\$0			\$0

QUANTITY	UNIT	5-Aug-15				TOTAL AMOUNT	Delta Amount
		MATERIAL		LABOR			
		UNIT RATE	AMOUNT	UNIT RATE	AMOUNT		
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,000.00	\$5,000
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,300.00	\$1,300
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,600.00	\$1,600
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,300.00	\$5,300
2	EA	\$0.00	\$0	\$0.00	\$0	\$2,400.00	\$4,800
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,000.00	\$5,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,300.00	\$5,300
1	EA	\$0.00	\$0	\$0.00	\$0	\$2,400.00	\$2,400
1	EA	\$0.00	\$0	\$0.00	\$0	\$2,500.00	\$2,500
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$450.00	\$450
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$450.00	\$450
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$450.00	\$450
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$450.00	\$450
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,000.00	\$1,000
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,000.00	\$5,000
2	EA	\$0.00	\$0	\$0.00	\$0	\$1,200.00	\$2,400
2	EA	\$0.00	\$0	\$0.00	\$0	\$800.00	\$1,600
2	EA	\$0.00	\$0	\$0.00	\$0	\$719.00	\$1,438
2	EA	\$0.00	\$0	\$0.00	\$0	\$650.00	\$1,300
2	EA	\$0.00	\$0	\$0.00	\$0	\$650.00	\$1,300
1	EA	\$0.00	\$0	\$0.00	\$0	\$97,576.00	\$97,576
1	EA	\$0.00	\$0	\$0.00	\$0	(\$24,394.00)	(\$24,394)
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$5,000.00	\$5,000
1	EA	\$0.00	\$0	\$0.00	\$0	\$1,200.00	\$1,200
1	EA	\$0.00	\$0	\$0.00	\$0	\$800.00	\$800
1	EA	\$0.00	\$0	\$0.00	\$0	\$719.00	\$719
2	EA	\$0.00	\$0	\$0.00	\$0	\$650.00	\$1,300
2	EA	\$0.00	\$0	\$0.00	\$0	\$650.00	\$1,300
1	EA	\$0.00	\$0	\$0.00	\$0	\$66,252.00	\$66,252
1	EA	\$0.00	\$0	\$0.00	\$0	(\$16,563.00)	(\$16,563)
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
		\$0.00	\$0	\$0.00	\$0	\$0	\$0
1	EA	\$0.00	\$0	\$0.00	\$0	\$500.00	\$500
2	EA	\$0.00	\$0	\$0.00	\$0	\$600.00	\$1,200
2	EA	\$0.00	\$0	\$0.00	\$0	\$689.00	\$1,378
1	EA	\$0.00	\$0	\$0.00	\$0	\$15,626.00	\$15,626
1	EA	\$0.00	\$0	\$0.00	\$0	(\$3,907.00)	(\$3,907)
		\$0.00	\$0	\$0.00	\$0	\$0	\$0

SCHEMATIC DESIGN COST ESTIMATE
SCARSDALE PUBLIC LIBRARY RENOVATION & EXPANSION
54 Olmsted Rd, Scarsdale, NY

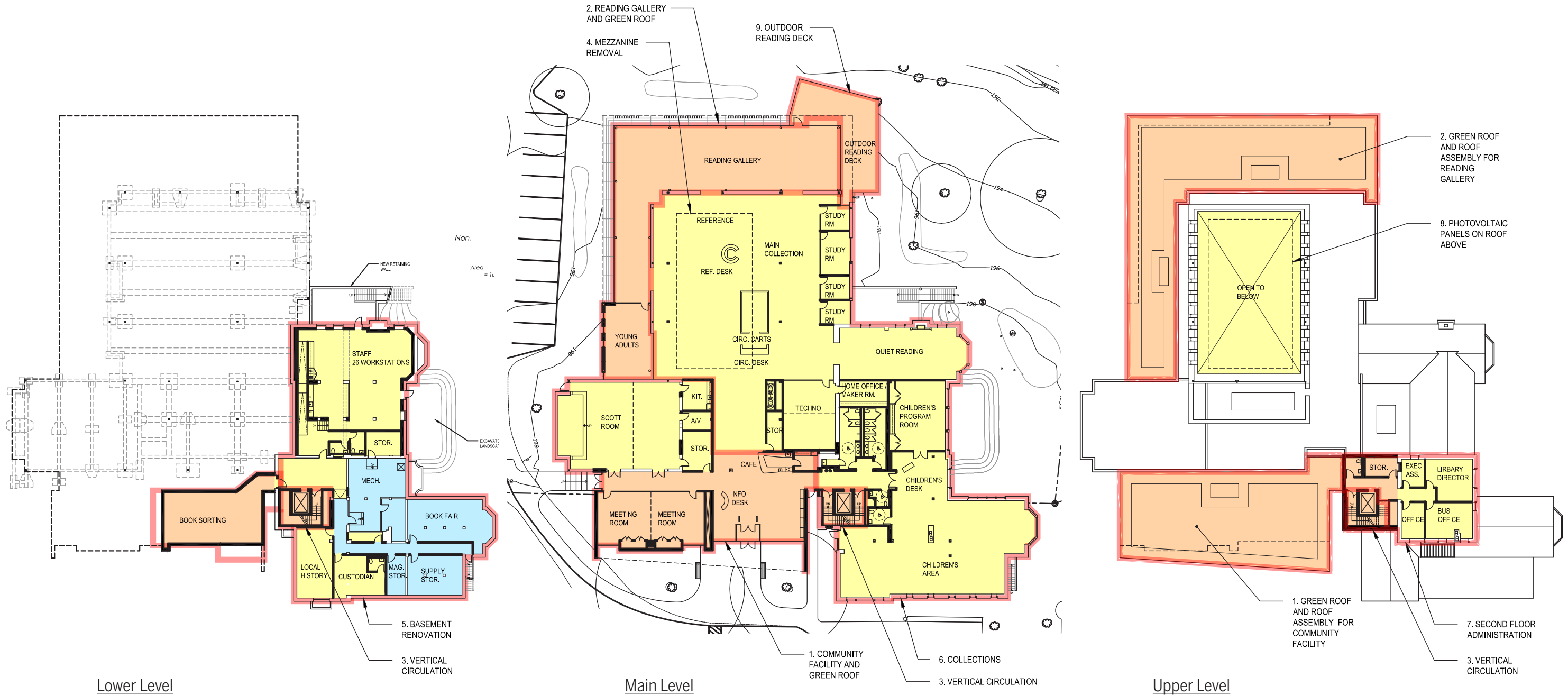
DETAILED ESTIMATE - Option A

DETAILED ESTIMATE - Option B

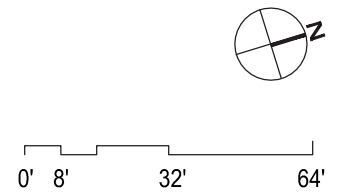
5-Aug-15

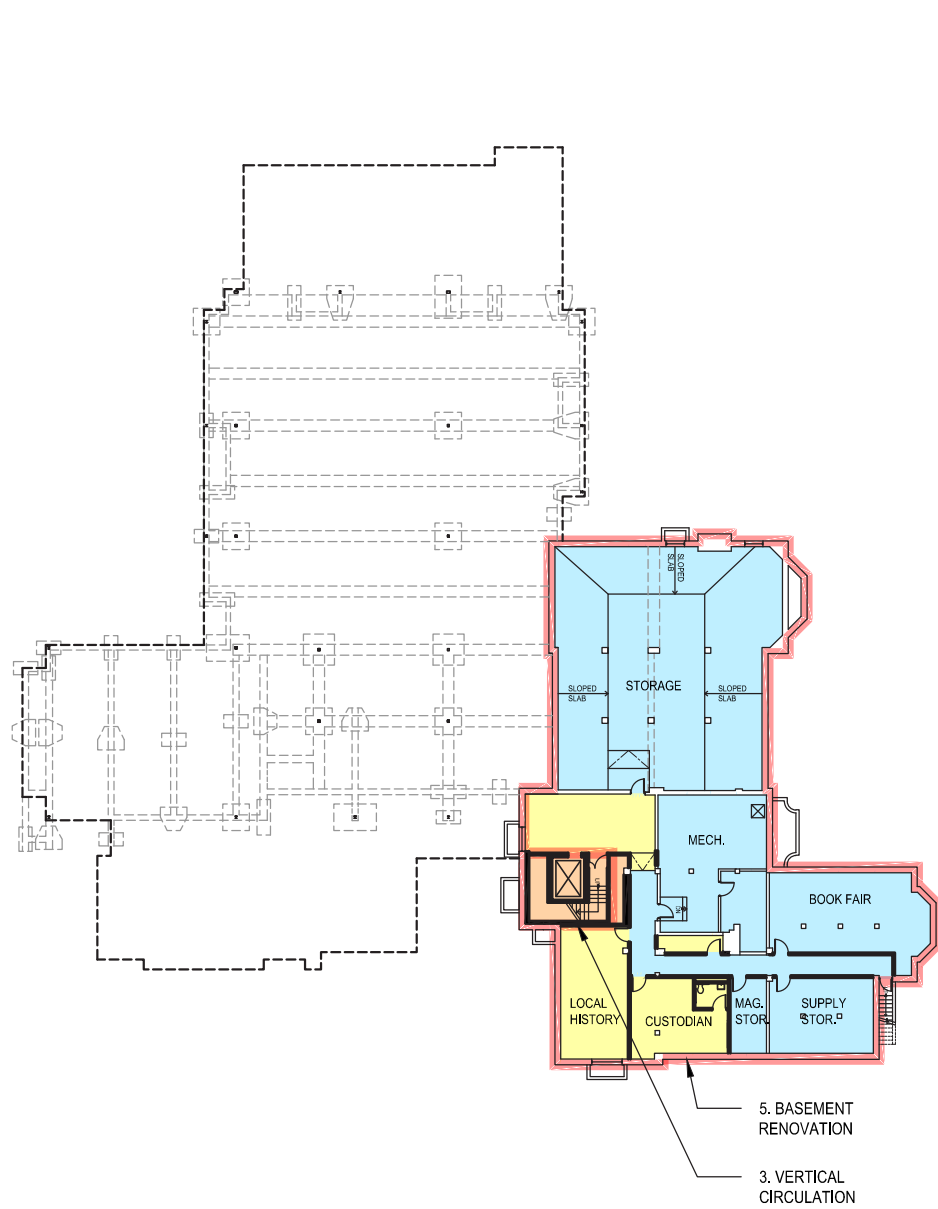
5-Aug-15

DESCRIPTION	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	QUANTITY	UNIT	MATERIAL		LABOR		UNIT PRICE	TOTAL AMOUNT	Delta Amount
			UNIT RATE	AMOUNT	UNIT RATE	AMOUNT					UNIT RATE	AMOUNT	UNIT RATE	AMOUNT			
Young Adult				\$0		\$0		\$0									\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$0	\$500.00	\$500						\$0	\$0		\$0
Audiovisual Equipment Rack; 12 Rack Unit High for Millwork	2	EA		\$0		\$0	\$600.00	\$1,200						\$0	\$0		\$0
Surge Suppressor/Power Distribution w/Remote On	2	EA		\$0		\$0	\$689.00	\$1,378						\$0	\$0		\$0
Non-Equipment Cost	1	EA		\$0		\$0	\$16,227.00	\$16,227						\$0	\$0		\$0
END USER DISCOUNT ESTIMATE	1	EA		\$0		\$0	(\$4,057.00)	(\$4,057)						\$0	\$0		\$0
				\$0		\$0		\$0						\$0	\$0		\$0
Lobby & General Collection Area				\$0		\$0		\$0									\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$0	\$5,000.00	\$5,000						\$0	\$0		\$0
USB 2.0 CATx Extender Transmitter	1	EA		\$0		\$0	\$650.00	\$650						\$0	\$0		\$0
USB 2.0 CATx Extender Receiver	1	EA		\$0		\$0	\$650.00	\$650						\$0	\$0		\$0
Non-Equipment Cost	1	EA		\$0		\$0	\$11,525.00	\$11,525						\$0	\$0		\$0
END USER DISCOUNT ESTIMATE	1	EA		\$0		\$0	(\$2,881.00)	(\$2,881)						\$0	\$0		\$0
				\$0		\$0		\$0						\$0	\$0		\$0
Technology Room				\$0		\$0		\$0									\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$0	\$500.00	\$500						\$0	\$0		\$0
Audiovisual Equipment Rack; 12 Rack Unit High for Millwork	1	EA		\$0		\$0	\$600.00	\$600						\$0	\$0		\$0
Surge Suppressor/Power Distribution w/Remote On	1	EA		\$0		\$0	\$689.00	\$689						\$0	\$0		\$0
Non-Equipment Cost	1	EA		\$0		\$0	\$10,843.00	\$10,843						\$0	\$0		\$0
END USER DISCOUNT ESTIMATE	1	EA		\$0		\$0	(\$2,711.00)	(\$2,711)						\$0	\$0		\$0
				\$0		\$0		\$0						\$0	\$0		\$0
Study Room				\$0		\$0		\$0									\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$0	\$500.00	\$500						\$0	\$0		\$0
Audiovisual Equipment Rack; 12 Rack Unit High for Millwork	1	EA		\$0		\$0	\$600.00	\$600						\$0	\$0		\$0
Surge Suppressor/Power Distribution w/Remote On	1	EA		\$0		\$0	\$689.00	\$689						\$0	\$0		\$0
Non-Equipment Cost	1	EA		\$0		\$0	\$6,127.00	\$6,127						\$0	\$0		\$0
END USER DISCOUNT ESTIMATE	1	EA		\$0		\$0	(\$1,532.00)	(\$1,532)						\$0	\$0		\$0
				\$0		\$0		\$0						\$0	\$0		\$0
Large Study Room				\$0		\$0		\$0									\$0
Miscellaneous Wire, Cable, Connectors	1	EA		\$0		\$0	\$500.00	\$500						\$0	\$0		\$0
Audiovisual Equipment Rack; 12 Rack Unit High for Millwork	1	EA		\$0		\$0	\$600.00	\$600						\$0	\$0		\$0
Surge Suppressor/Power Distribution w/Remote On	1	EA		\$0		\$0	\$689.00	\$689						\$0	\$0		\$0
Non-Equipment Cost	1	EA		\$0		\$0	\$8,647.00	\$8,647						\$0	\$0		\$0
END USER DISCOUNT ESTIMATE	1	EA		\$0		\$0	(\$2,162.00)	(\$2,162)						\$0	\$0		\$0
				\$0		\$0		\$0						\$0	\$0		\$0
Total AV Package				\$0		\$0		\$756,658						\$0	\$756,658		\$0
				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
IT Package				\$0		\$0		\$0									\$0
Horizontal - Cabling/Outlets				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
1-Port Data Outlet	6	EA	\$175.00	\$1,050	\$85.00	\$510	\$260.00	\$1,560	6	EA	\$175.00	\$1,050	\$85.00	\$510	\$260.00	\$1,560	\$0
2-Port Data Outlet	70	EA	\$310.00	\$21,700	\$147.00	\$10,290	\$457.00	\$31,990	70	EA	\$310.00	\$21,700	\$147.00	\$10,290	\$457.00	\$31,990	\$0
2-Port Data Outlet-wireless access points	20	EA	\$310.00	\$6,200	\$147.00	\$2,940	\$457.00	\$9,140	20	EA	\$310.00	\$6,200	\$147.00	\$2,940	\$457.00	\$9,140	\$0
				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
Horizontal - Patch Panels				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
Category 6A -48 Port UTP RJ45 Patch Panel	5	EA	\$375.00	\$1,875	\$72.00	\$360	\$447.00	\$2,235	5	EA	\$375.00	\$1,875	\$72.00	\$360	\$447.00	\$2,235	\$0
2U Horizontal Wire-Management Panel	7	EA	\$50.00	\$350	\$36.00	\$252	\$86.00	\$602	7	EA	\$50.00	\$350	\$36.00	\$252	\$86.00	\$602	\$0
Patch Cords / Cross Connects				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
Patch Cords	1	LS	\$6,000.00	\$6,000		\$0	\$6,000.00	\$6,000	1	LS	\$6,000.00	\$6,000		\$0	\$6,000.00	\$6,000	\$0
Misc				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
Ty-wraps, Cable Supports, etc.	1	LS	\$500.00	\$500		\$0	\$500.00	\$500	1	LS	\$500.00	\$500		\$0	\$500.00	\$500	\$0
Grounding	1	LS	\$1,200.00	\$1,200	\$2,000.00	\$2,000	\$3,200.00	\$3,200	1	LS	\$1,200.00	\$1,200	\$2,000.00	\$2,000	\$3,200.00	\$3,200	\$0
Fire Stopping	1	LS	\$1,500.00	\$1,500	\$3,000.00	\$3,000	\$4,500.00	\$4,500	1	LS	\$1,500.00	\$1,500	\$3,000.00	\$3,000	\$4,500.00	\$4,500	\$0
Project Management	1	LS		\$0	\$4,500.00	\$4,500	\$4,500.00	\$4,500	1	LS		\$0	\$4,500.00	\$4,500	\$4,500.00	\$4,500	\$0
As-Built	1	LS		\$0	\$1,800.00	\$1,800	\$1,800.00	\$1,800	1	LS		\$0	\$1,800.00	\$1,800	\$1,800.00	\$1,800	\$0
				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
BDF Fitout (Does not include construction costs to construct room)				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
EIA Equipment	3	EA	\$275.00	\$825	\$136.00	\$408	\$411.00	\$1,233	3	EA	\$275.00	\$825	\$136.00	\$408	\$411.00	\$1,233	\$0
Double-sided Vertical Wire Mgmt. Trough	4	EA	\$75.00	\$300	\$72.00	\$288	\$147.00	\$588	4	EA	\$75.00	\$300	\$72.00	\$288	\$147.00	\$588	\$0
Plug Strip	2	EA	\$215.00	\$430	\$72.00	\$144	\$287.00	\$574	2	EA	\$215.00	\$430	\$72.00	\$144	\$287.00	\$574	\$0
Ladder Rack (3m section)	3	EA	\$50.00	\$150	\$140.00	\$420	\$190.00	\$570	3	EA	\$50.00	\$150	\$140.00	\$420	\$190.00	\$570	\$0
Ladder Rack Accessories	3	EA	\$500.00	\$1,500	\$140.00	\$420	\$640.00	\$1,920	3	EA	\$500.00	\$1,500	\$140.00	\$420	\$640.00	\$1,920	\$0
				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
				\$0		\$0	\$0.00	\$0						\$0	\$0		\$0
Total IT Works				\$43,580		\$27,332		\$70,912						\$43,580	\$27,332		\$70,912
				\$0		\$0		\$0						\$0	\$0		\$0
Total Trade Cost excluding AV & IT packages (Below the line)								\$9,800,999									\$8,064,691
																	(\$1,736,308)

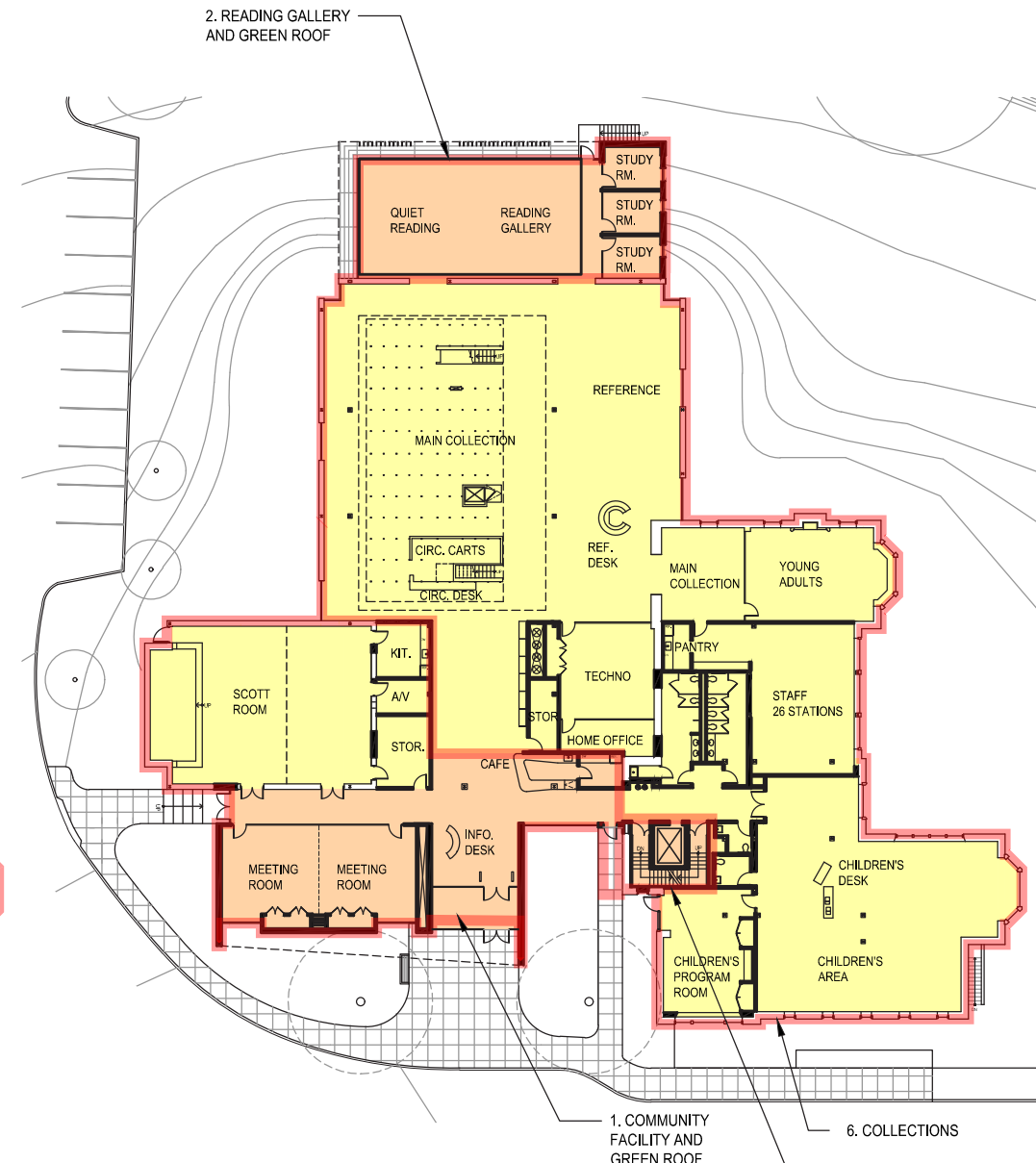


- Light Renovation
- Heavy Renovation
- New
- Kit of Parts Boundary

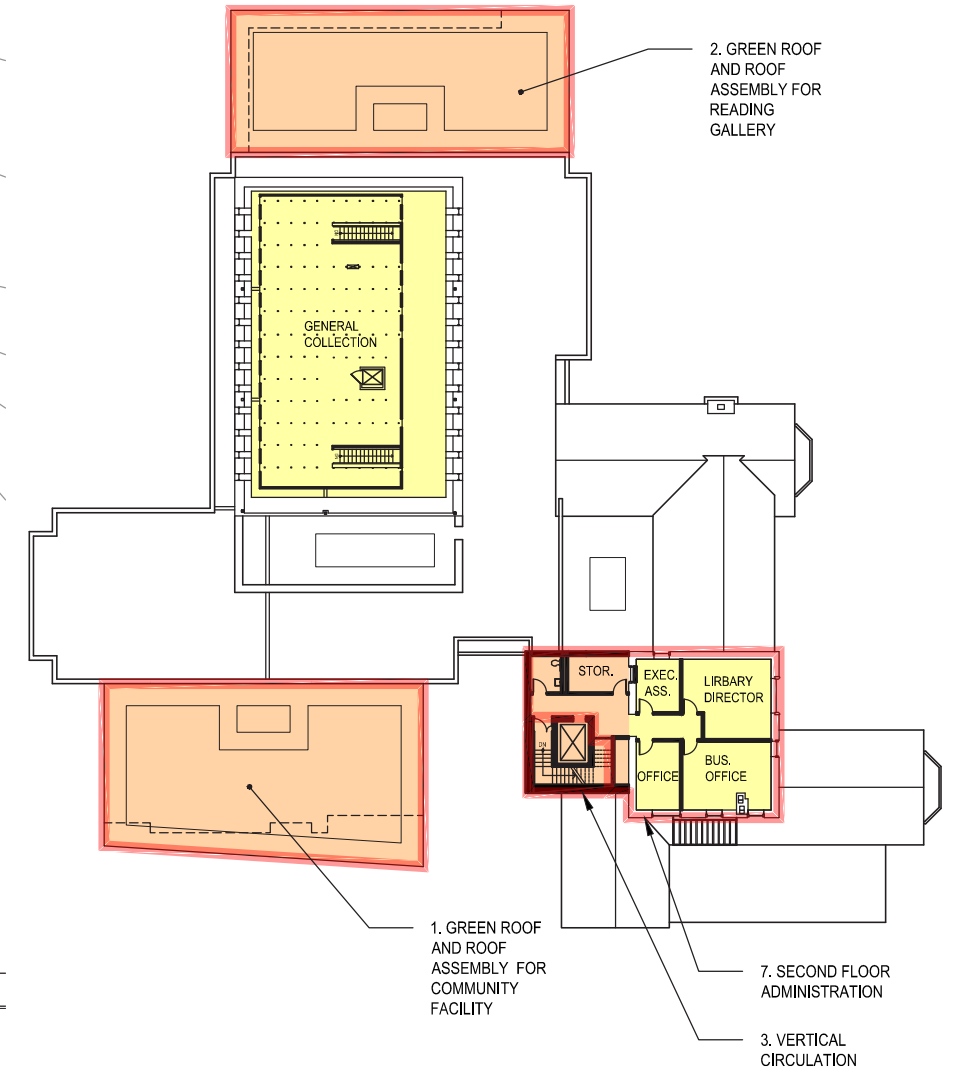




Lower Level

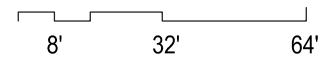


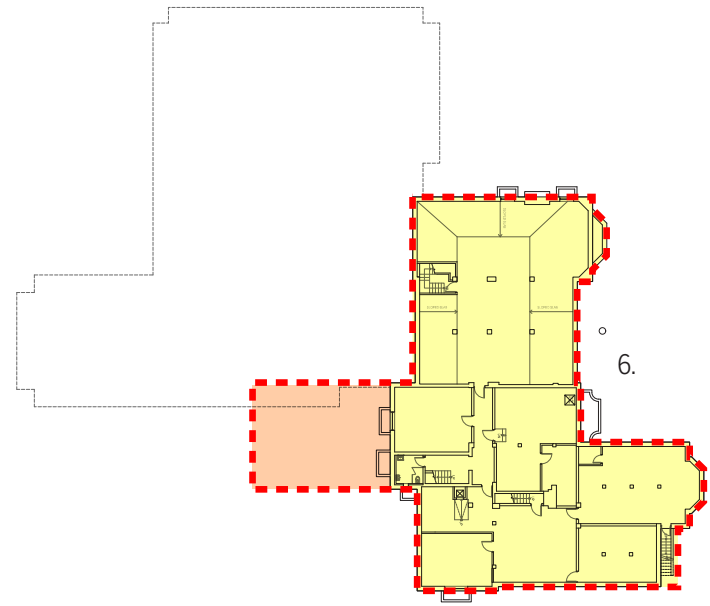
Main Level



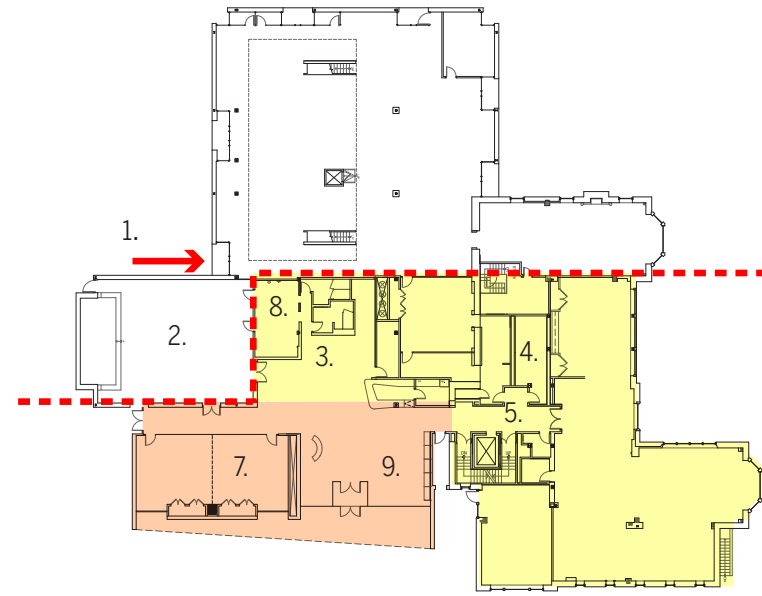
Upper Level

- Light Renovation
- Heavy Renovation
- New
- Kit of Parts Boundary

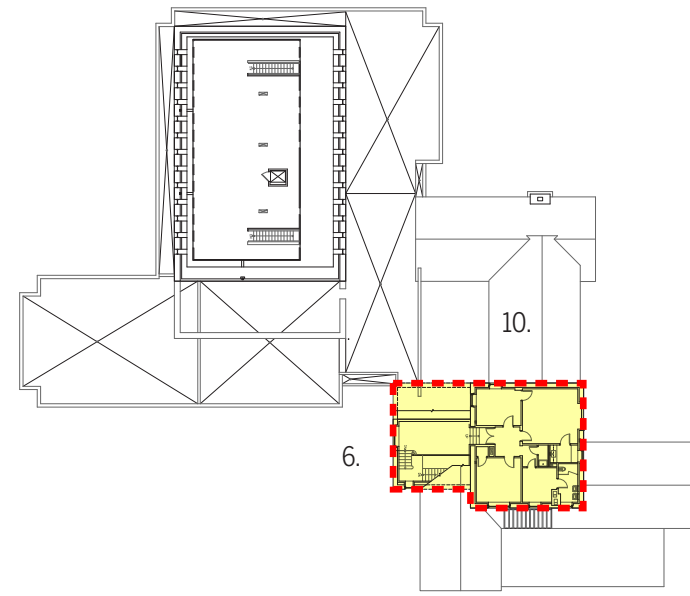




Lower Level



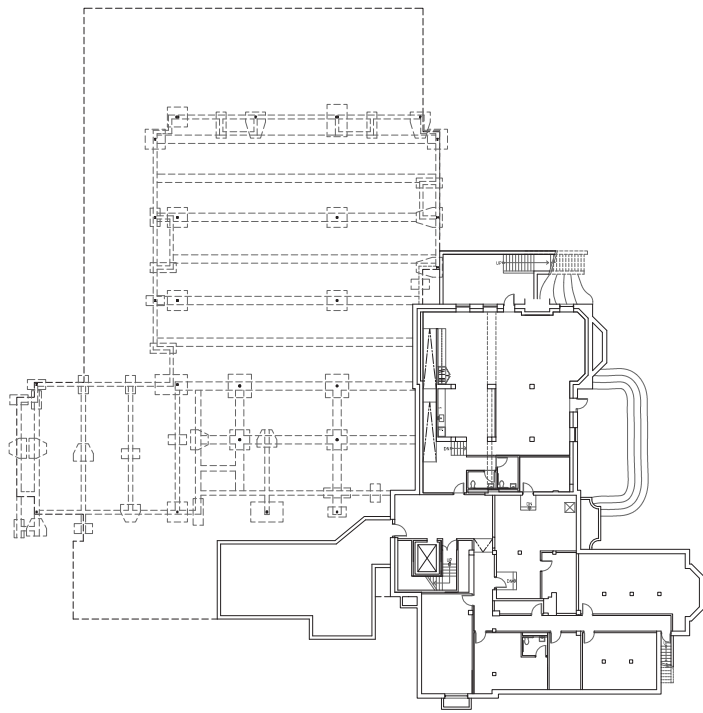
Main Level



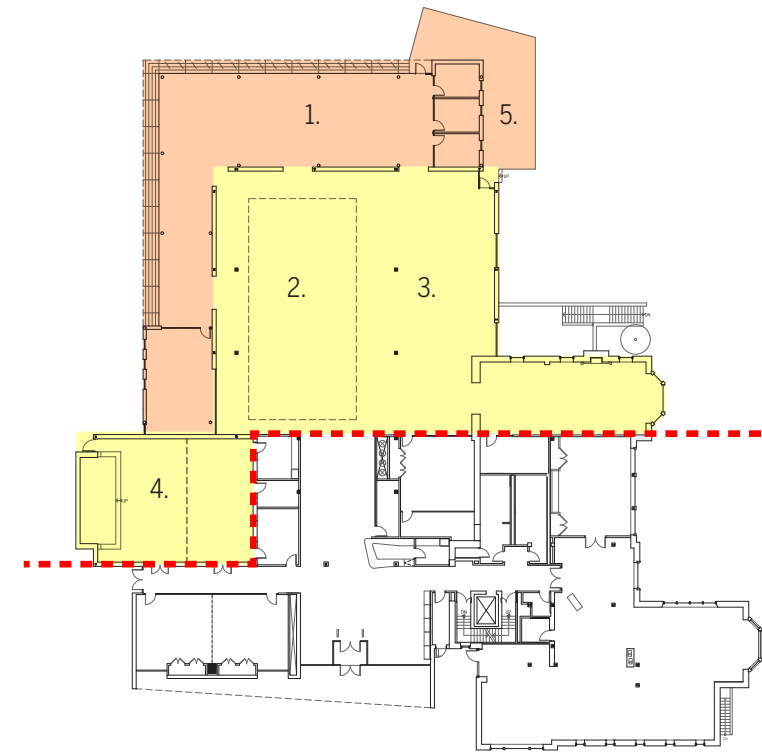
Upper Level

Phase 1

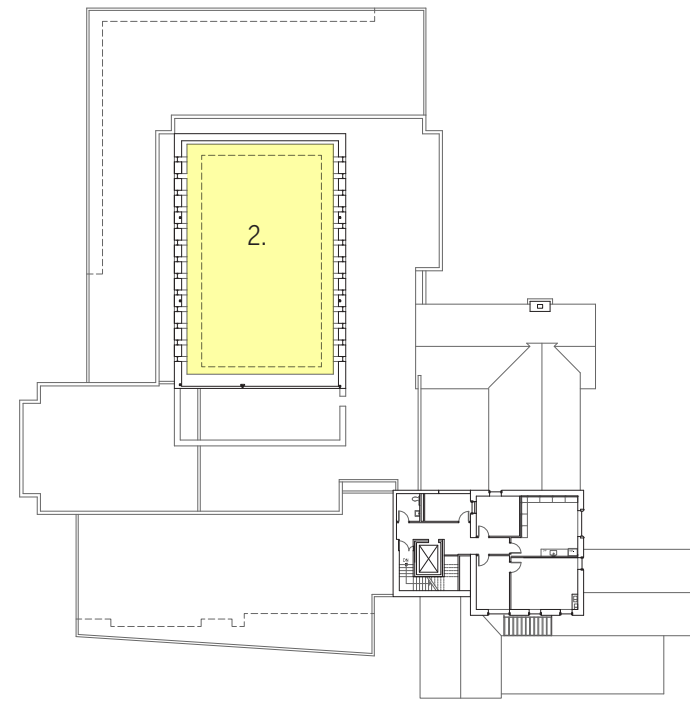
1. Entrance temporarily relocated
2. Scott Room used as swing space
3. Existing bathrooms to remain in use
4. New toilets construction
5. Stair and elevator core construction
6. Basement and Upper Level renovation
7. Community rooms and Entry Lobby construction
8. Existing toilets demolition
9. Completion of entrance
10. Slate roof replacement



Lower Level



Main Level



Upper Level

Phase 2

1. Reading Gallery construction
2. Mezzanine demolition
3. Renovation of Main collection areas
4. Renovation of Scott Room
5. Exterior deck construction

Lighting Design Cost Estimate

Bearing in mind all of the important programmatic, operational, energy code compliance, sustainability and thematic concerns budget projections at this early project stage are best expressed as a range. Based on recently designed projects in (NY State) we estimate the following installed lighting values:

\$19.50 per ft/2 to \$31.10 per ft/2.

The lower budget range would reflect a combined technology approach [linear T5 plus selected LED applications] while the higher value reflects a 100% LED approach.

Please Note:

1. The budget ranges above are based upon the standard commercially available lighting equipment and control systems along with reasonable assumptions for electrical distributor and electrical contractor markups.
2. All lighting budgets include cost of lamps.
3. All lighting budgets above include installation costs.
4. Special brackets, mounting, conduit wire or the labor to install such elements has not been included or accounted for.
5. Costs of new electrical service, panel boards, cabling, mobilization, scaffolding, rigging and related elements have not been included or accounted for.

Roofing Cost Estimate

Construction Cost Budgets:

Replace Areas A-G, and M

• Replace 11,440 SF of roofing @ \$25/SF	\$ 286,500
• Scrape prime and paint the gas line and steel dunnage	\$3,000
• Repair cracks in the stucco and coat the walls with Thoroseal	\$7,500
Total	\$ 297,000

Replace slate Areas I -K

• Replace 7,800 SF of slate @ 60/SF	\$ 468,000
• Install new 3 pipe snow guards	20,000
• Replace skylight	25,000
• Repoint chimney and install new chimney caps	20,000
• Repair and repoint walls above slate roof areas	20,000
Total	\$ 553,000

New Roof Areas

• Option A (Community Facility & Reading Gallery 8,800 SF of roofing @ 15/SF	\$ 132,000
• Option B (Community Facility & Reading Gallery 5,200 SF of roofing @ 15/SF	\$ 78,000
• New Stair & Elevator Core 850 SF of roofing @ 20/SF	\$ 17,000

1. The budget does not include the cost to remove asbestos roofing material if any are found in the flat roofing or under the slate.
2. The budget does not include costs for repairs to the exterior masonry facade walls below the roof.
3. The budget does not include costs for the green roof components (soil and vegetation) for the new addition roofs.
4. This budget does not include costs for the removal of existing roofing and structure, and the new structure for the New Stair & Elevator Core.
5. It is predicated on 2015 construction costs.

Abatement Cost Estimate

APPLIED TECHNOLOGY SERVICES, INC.

481 MAIN STREET – SUITE 503
 NEW ROCHELLE, NY 10801
 914.654.0080 / FAX 914.654.1332

July 17, 2015

Paul Zaicek
 Director of Capital Projects
 Village of Scarsdale – Village Hall
 1001 Post Road
 Scarsdale, NY 10583

RE: Cost Estimate
 Scarsdale Public Library Renovations & Addition

NYSDOL Filing Fees:		\$ 2,000.00
Mobilization/Breakdown:		\$ 8,000.00
Removals:		
<u>Interior</u>		
• Mudded Joint Fittings (Concealed Domestic Water Lines)		
Glovebag in Tent w/ demo	50 Units @ \$ 50.00 Unit	\$ 2,500.00
Tent Construction	3 Locations @ \$ 1,300.00	\$ 3,900.00
• 9x9 Vinyl Floor Tile w/ Mastic	1,685 SF @ \$ 10.00 SF	\$ 16,850.00
• 9x9 Vinyl Floor Tile w/ Mastic	340 SF @ \$ 10.00 SF	\$ 3,400.00
<u>Roofs</u>		
• Flat "A", "B", "C", "D", "E" & "F" Roofs of the '71 Addition		
	10,630 SF @ \$9.00 SF	\$ 95,670.00
• Flat "G" Roof on the Original Building		
	630 SF @ \$9.00 SF	\$ 5,670.00
• "J" Roof Gutter Mastic w/ Reinforcement Fabric/ "K" Cripple		
	366 SF @ 12.00 SF	\$ 4,392.00
• Mastic on Slate Roof Ridges & Valleys		
	450 LF x 2" @ \$ 7.50 LF	\$ 3,375.00
Waste Disposal:		
• 4 X 40 YD Dumpsters @ \$ 2,000.00		\$ 8,000.00
Monitoring		
• Abatement Project Management & Air Monitoring (Based on 18 days)		<u>\$ 15,600.00</u>

Total Abatement/Monitoring Estimate: \$ 169,357.00

Charles G. Copple
 Program Director
 Applied Technology Services, Inc.

IT Preliminary Cabling System Budget

Scarsdale Public Library SCS Preliminary Budget Estimate								
13-Jul-15	Part	Quantity	Unit Material	Unit Labor	Total Material	Total Labor	Line Total	
Horizontal - Cabling/Outlets								
1	1-Port Data Outlet	6	\$ 175.00	\$ 85.00	\$ 1,050.00	\$ 510.00	\$ 1,560.00	
2	2-Port Data Outlet	70	\$ 310.00	\$ 147.00	\$ 21,700.00	\$ 10,290.00	\$ 31,990.00	
3	2-Port Data Outlet-wireless access points	20	\$ 310.00	\$ 147.00	\$ 6,200.00	\$ 2,940.00	\$ 9,140.00	
4	CATV Outlet		\$ 175.00	\$ 95.00	\$ -	\$ -	\$ -	
Horizontal - Patch Panels								
5	Category 6A - 48 Port UTP RJ45 Patch Panel	5	\$ 375.00	\$ 72.00	\$ 1,875.00	\$ 360.00	\$ 2,235.00	
6	2U Horizontal Wire Management Panel	7	\$ 50.00	\$ 36.00	\$ 350.00	\$ 252.00	\$ 602.00	
Patch Cords / Cross Connects								
7	Patch Cords	Lot	\$ 6,000.00		\$ 6,000.00	\$ -	\$ 6,000.00	
Misc								
8	Ty-wraps, Cable Supports, etc.	Lot	\$ 500.00		\$ 500.00	\$ -	\$ 500.00	
9	Grounding	Lot	\$ 1,200.00	\$ 2,000.00	\$ 1,200.00	\$ 2,000.00	\$ 3,200.00	
10	Fire Stopping	Lot	\$ 1,500.00	\$ 3,000.00	\$ 1,500.00	\$ 3,000.00	\$ 4,500.00	
11	Project Management	Lot		\$ 4,500.00	\$ -	\$ 4,500.00	\$ 4,500.00	
12	As-Built Drawings	Lot		\$ 1,800.00	\$ -	\$ 1,800.00	\$ 1,800.00	
Horizontal Subtotal							\$ 66,027.00	
BDF Fitout (Does not include construction costs to construct room)								
13	EIA Equipment Rack	3	\$ 275.00	\$ 136.00	\$ 825.00	\$ 408.00	\$ 1,233.00	
14	Double-sided Vertical Wire Mgmt. Trough	4	\$ 75.00	\$ 72.00	\$ 300.00	\$ 288.00	\$ 588.00	
15	Plug Strip	2	\$ 215.00	\$ 72.00	\$ 430.00	\$ 144.00	\$ 574.00	
16	Ladder Rack (3m section)	3	\$ 50.00	\$ 140.00	\$ 150.00	\$ 420.00	\$ 570.00	
17	Ladder Rack Accessories	3	\$ 500.00	\$ 140.00	\$ 1,500.00	\$ 420.00	\$ 1,920.00	
BDF Fitout Subtotal							\$ 4,885.00	
Scarsdale Public Library Budget Total					\$ 43,580.00	\$ 27,332.00	\$ 70,912.00	

Notes

The schematic design package was used to estimate quantities for this budget.
 Exact number of information outlets will be finalized during design development phase.
 Except where noted, this budget excludes

- Conduit and raceway
- Telecom. power requirements
- Underground duct banks, man-holes, any excavation or related work for such items
- Lights, lighting fixtures, etc.
- Grounding system to each technology room (Grounding of devices to Ground bar in room is included)
- HVAC fit-out items (AC units, duct work, fans, thermostats, BMS, etc.)
- General construction (walls, flooring, ceiling, finishes)
- Security devices (cameras, card readers, access control)
- Network and voice system electronics

Design contingency is not included
 No sales tax has been applied
 Pricing escalation over the duration of the project is not included
 Cost fluctuation due to the price of raw materials, particularly copper and petroleum may affect this estimate

A/V Preliminary Budget

Scarsdale Public Library							July 13, 2015
Summary Sheet							
	ROOM	EQUIPMENT COSTS	NON-EQUIPMENT COSTS	AREA SUBTOTAL	TOTAL ROOM COST (LESS END USER DISCOUNT)	ROOM COUNT	TOTAL AV CONTRACTOR COSTS
1	Scott Room	\$ 243,939	\$ 97,576	\$ 341,515	\$ 317,121	1	\$ 317,121
2	Divisible Meeting Room	\$ 165,630	\$ 66,252	\$ 231,882	\$ 215,319	1	\$ 215,319
3	Children's Room	\$ 39,066	\$ 15,626	\$ 54,692	\$ 50,786	1	\$ 50,786
4	Young Adult	\$ 40,567	\$ 16,227	\$ 56,794	\$ 52,737	1	\$ 52,737
5	Lobby & General Collection Area	\$ 28,813	\$ 11,525	\$ 40,338	\$ 37,457	1	\$ 37,457
6	Technology Room	\$ 27,108	\$ 10,843	\$ 37,951	\$ 35,240	1	\$ 35,240
7	Study Room	\$ 15,317	\$ 6,127	\$ 21,444	\$ 19,912	3	\$ 59,736
8	Large Study Room	\$ 21,617	\$ 8,647	\$ 30,264	\$ 28,102	1	\$ 28,102
TOTAL							\$ 796,498

Scarsdale Public Library					July 13, 2015	
ROOM: Scott Room						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
DISPLAY SYSTEMS						
	Data/Video WUXGA DLP Projector; 7,500 Lumens w/ HDbaseT Input	2	\$ 10,995	\$ 21,990		
	Data/Video Projector Motorized Zoom Lens	2	\$ 2,995	\$ 5,990		
	Data/Video WUXGA LCD Projector; 12,000 Lumens	1	\$ 19,995	\$ 19,995		
	Data/Video Projector Motorized Zoom Lens	1	\$ 2,995	\$ 2,995		
	Fine-Tune Video Projector Mount	3	\$ 252	\$ 756		
	Front Projection Screen, Medium 16:10 Aspect Ratio w/ ceiling enclosure	2	\$ 3,327	\$ 6,654		
	Front Projection Screen, Large 16:10 Aspect Ratio w/ ceiling enclosure	1	\$ 3,363	\$ 3,363		
				\$ -		
DISPLAY SYSTEMS TOTAL				\$ 61,743		
AUDIO SYSTEMS						
	Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated Enclosure	16	\$ 579	\$ 9,264		
	Surface Mounted Performance Speaker, 8" DC Driver	4	\$ 660	\$ 2,640		
	Surface Mounted Performance Speaker, 8" DC Driver; Stage Monitor	2	\$ 660	\$ 1,320		
	Surface Mounted Performance Speaker, 8" DC & 8" LF Driver	3	\$ 1,188	\$ 3,564		
	Performance Audio Subwoofer, Dual 12"; Bandpass	1	\$ 2,048	\$ 2,048		
	12x8 Audio DSP Processing System w/AEC & Dante	3	\$ 3,299	\$ 9,897		
	2 Line VoIP Interface Card	1	\$ 579	\$ 579		
	7.1 High-Definition Professional Surround Sound Processor	1	\$ 2,500	\$ 2,500		
	Two Channel 70V Amplifier - 200 Watts Per Channel	1	\$ 1,290	\$ 1,290		
	Stereo Amplifier - 400 Watts Per Channel	5	\$ 1,290	\$ 6,450		
	Two Channel Amplifier; 1500 Watts Per Channel (70V or 4/8ohm)	1	\$ 3,600	\$ 3,600		
	Eight Channel Access Point Transceiver w/ Dante	2	\$ 4,260	\$ 8,520		
	Four/Eight Microphone Networked Charging Station	3	\$ 2,220	\$ 6,660		
	Boundary Wireless Microphone Transmitter; Cardioid	16	\$ 789	\$ 12,624		
	Hybrid Bodypack Transmitter	1	\$ 698	\$ 698		
	Earset Microphone w/Cardioid Polar Pattern & TA4F Connector	1	\$ 600	\$ 600		
	Handheld Wireless Microphone Transmitter; Beta 58A	1	\$ 806	\$ 806		
	Microphone, Lectern Gooseneck Cardioid Condenser RF	1	\$ 350	\$ 350		
	Shock Mount for Table Gooseneck Microphone	1	\$ 35	\$ 35		
	Digital Audio Mixing Console	1	\$ 6,000	\$ 6,000		
	Dante I/O card for Digital Audio Production Mixer	1	\$ 600	\$ 600		
	16 Channel Dante Digital Network Remote I/O Unit	1	\$ 4,800	\$ 4,800		
	Various Microphones & Stands	1	\$ 5,000	\$ 5,000		
	Assistive Listening Emitter	2	\$ 2,000	\$ 4,000		
	Assistive Listening Wideband Modulator; 2 Channel	2	\$ 900	\$ 1,800		
	Assistive Listening Single Channel Receiver	6	\$ 150	\$ 900		
	Assistive Listening Charging Unit for 10 Receivers	1	\$ 300	\$ 300		
	Assistive Listening 2-Channel Bodypack Receiver with Induction Neck Loop	2	\$ 375	\$ 750		
				\$ -		
AUDIO SYSTEMS TOTAL				\$ 97,595		
VIDEO SYSTEMS						
	Digital Media Matrix Switcher; 16 x 16 w/ Redundant Power Supply	1	\$ 9,800	\$ 9,800		
	8G+ Input Card for Digital Media Matrix Switcher w/Down-Mixing	4	\$ 1,300	\$ 5,200		
	4K HDMI Input Card for Digital Media Matrix Switcher	7	\$ 800	\$ 5,600		
	2 HDMI Output Card for Digital Media Matrix Switcher	2	\$ 700	\$ 1,400		
	2 DM 4K 8G+ Output Card for Digital Media Matrix Switcher	6	\$ 1,300	\$ 7,800		
	Wall Plate DigitalMedia 8G+ Transmitter	4	\$ 1,400	\$ 5,600		
	Wall Mounted PTZ Camera; RoboSHOT 30 QUSB w/CATx Extension & H.264	2	\$ 6,695	\$ 13,390		
	Soft Codec AV Bridge	2	\$ 1,499	\$ 2,998		
	DVD/Bluray/CD Player, with RS-232 Control	1	\$ 1,000	\$ 1,000		
	Wireless Presentation Gateway	2	\$ 1,600	\$ 3,200		
	24-Port Gigabit Ethernet Switch w/PoE	1	\$ 475	\$ 475		
	PC or Mac w/(2) Dual HDMI Output & Minimum (4) USB Ports	3	OFE	OFE		
				\$ -		
VIDEO SYSTEMS TOTAL				\$ 56,463		
CONTROL SYSTEMS						
	Integrated Control System	1	\$ 5,300	\$ 5,300		
	Control System Touch Panel, 10.1"	2	\$ 2,400	\$ 4,800		
	iPad with Retina display (Current Generation)	1	OFE	OFE		
	Control System Programming	1	\$ 5,000	\$ 5,000		
				\$ -		
CONTROL SYSTEMS TOTAL				\$ 15,100		
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	1	\$ 5,000	\$ 5,000		

Scarsdale Public Library					July 13, 2015	
ROOM: Scott Room						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
	Audiovisual Equipment Rack; 44 RU x 26" Deep	2	\$ 1,200	\$ 2,400		
	Audiovisual Equipment Rack; Side Panels, Casters, Fan & Accessories	2	\$ 800	\$ 1,600		
	Surge Suppressor/Power Distribution	2	\$ 719	\$ 1,438		
	USB 2.0 CATx Extender Transmitter	2	\$ 650	\$ 1,300		
	USB 2.0 CATx Extender Receiver	2	\$ 650	\$ 1,300		
				\$ -		
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 13,038		
TOTAL EQUIPMENT COST				\$ 243,939		
TOTAL NON-EQUIPMENT COST				\$ 97,576		
TOTAL ROOM COST				\$ 341,515		
END USER DISCOUNT ESTIMATE				\$ 24,394		
TOTAL ROOM COST				\$ 317,121		

Scarsdale Public Library					July 13, 2015	
ROOM: Young Adult						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
DISPLAY SYSTEMS						
	LED Backlit Data/Video Flat Panel Display Monitor, 65" w/Touchscreen & HdbaseT Input	1	\$ 6,728	\$ 6,728		
	Flat Panel Display Fixed Wall Mount	1	\$ 200	\$ 200		
	Flat Panel Monitor Side Attachable Pair of Speakers	1	\$ 600	\$ 600		
				\$ -		
DISPLAY SYSTEMS TOTAL				\$ 7,528		
AUDIO SYSTEMS						
	Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated Enclosure	6	\$ 579	\$ 3,474		
	In-Wall Definition Speaker, Three 6.5" DC Drivers	5	\$ 1,309	\$ 6,545		
	In-Wall Definition Subwoofer Two 10"	1	\$ 1,769	\$ 1,769		
	In-Wall Definition Speaker Pre Install Frame	6	\$ 169	\$ 1,014		
	12x8 Audio DSP Processing System w/Dante	1	\$ 2,969	\$ 2,969		
	7.2 Channel Surround Sound Receiver w/ Dolby Atmos Processing	1	\$ 1,500	\$ 1,500		
	70V Amplifier - 40 Watts	2	\$ 450	\$ 900		
	Stereo Amplifier - 400 Watts Per Channel	1	\$ 1,290	\$ 1,290		
				\$ -		
AUDIO SYSTEMS TOTAL				\$ 19,461		
VIDEO SYSTEMS						
	Digital Media System Switcher 5 x 2	1	\$ 5,000	\$ 5,000		
	Wall Plate DigitalMedia 8G+ Transmitter	1	\$ 1,400	\$ 1,400		
	DVD/Bluray/CD Player, with RS-232 Control	1	\$ 1,000	\$ 1,000		
	Wireless Presentation Gateway	1	\$ 1,600	\$ 1,600		
	PC or Mac w/HDMI Output	1	OFE	OFE		
				\$ -		
VIDEO SYSTEMS TOTAL				\$ 9,000		
CONTROL SYSTEMS						
	Media Presentation Button Panel	1	\$ 500	\$ 500		
	Control System Programming	1	\$ 1,000	\$ 1,000		
				\$ -		
CONTROL SYSTEMS TOTAL				\$ 1,500		
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	1	\$ 500	\$ 500		
	Audiovisual Equipment Rack; 12 Rack Unit High for Millwork Installation	2	\$ 600	\$ 1,200		
	Surge Suppressor/Power Distribution w/Remote On	2	\$ 689	\$ 1,378		
				\$ -		
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 3,078		
TOTAL EQUIPMENT COST				\$ 40,567		
TOTAL NON-EQUIPMENT COST				\$ 16,227		
TOTAL ROOM COST				\$ 56,794		
END USER DISCOUNT ESTIMATE				\$ 4,057		
TOTAL ROOM COST				\$ 52,737		

Scarsdale Public Library					July 13, 2015	
ROOM: Lobby & General Collection Area						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
DISPLAY SYSTEMS						
	LED Backlit Data/Video Flat Panel Display Monitor, 65" w/Touchscreen & HdbaseT Input	1	\$ 6,728	\$ 6,728		
	Flat Panel Display Fixed Wall Mount	1	\$ 200	\$ 200		
	LED Backlit Data/Video Flat Panel Display Monitor, 46" w/ HDbaseT Input Card	5	\$ 2,478	\$ 12,390		
	Flat Panel Display Monitor Ceiling Mount	5	\$ 349	\$ 1,745		
				\$ -		
DISPLAY SYSTEMS TOTAL				\$ 21,063		
CONTROL SYSTEMS						
	Media Presentation Button Panel	1	\$ 450	\$ 450		
	Control System Programming	1	\$ 1,000	\$ 1,000		
				\$ -		
CONTROL SYSTEMS TOTAL				\$ 1,450		
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	1	\$ 5,000	\$ 5,000		
	USB 2.0 CATx Extender Transmitter	1	\$ 650	\$ 650		
	USB 2.0 CATx Extender Receiver	1	\$ 650	\$ 650		
				\$ -		
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 6,300		
TOTAL EQUIPMENT COST				\$ 28,813		
TOTAL NON-EQUIPMENT COST				\$ 11,525		
TOTAL ROOM COST				\$ 40,338		
END USER DISCOUNT ESTIMATE				\$ 2,881		
TOTAL ROOM COST				\$ 37,457		

Scarsdale Public Library					July 13, 2015	
ROOM: Technology Room						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
DISPLAY SYSTEMS						
	LED Backlit Data/Video Flat Panel Display Monitor, 65" w/Touchscreen & HdbaseT Input	1	\$ 6,728	\$ 6,728		
	Flat Panel Display Fixed Wall Mount	1	\$ 200	\$ 200		
	Flat Panel Monitor Side Attachable Pair of Speakers	1	\$ 600	\$ 600		
				\$ -		
DISPLAY SYSTEMS TOTAL				\$ 7,528		
AUDIO SYSTEMS						
	Ceiling Speaker, 8" DC Driver; w/Transformer and Integrated Enclosure	8	\$ 579	\$ 4,632		
	12x8 Audio DSP Processing System w/Dante	1	\$ 2,969	\$ 2,969		
	70V Amplifier - 200 Watts	1	\$ 690	\$ 690		
				\$ -		
AUDIO SYSTEMS TOTAL				\$ 8,291		
VIDEO SYSTEMS						
	Digital Media System Switcher 5 x 2	1	\$ 5,000	\$ 5,000		
	Wall Plate DigitalMedia 8G+ Transmitter	1	\$ 1,400	\$ 1,400		
	Wireless Presentation Gateway	1	\$ 1,600	\$ 1,600		
	PC or Mac w/HDMI Output	1	OFF	OFF		
				\$ -		
VIDEO SYSTEMS TOTAL				\$ 8,000		
CONTROL SYSTEMS						
	Media Presentation Button Panel	1	\$ 500	\$ 500		
	Control System Programming	1	\$ 1,000	\$ 1,000		
				\$ -		
CONTROL SYSTEMS TOTAL				\$ 1,500		
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	1	\$ 500	\$ 500		
	Audiovisual Equipment Rack; 12 Rack Unit High for Millwork Installation	1	\$ 600	\$ 600		
	Surge Suppressor/Power Distribution w/Remote On	1	\$ 689	\$ 689		
				\$ -		
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 1,789		
TOTAL EQUIPMENT COST				\$ 27,108		
TOTAL NON-EQUIPMENT COST				\$ 10,843		
TOTAL ROOM COST				\$ 37,951		
END USER DISCOUNT ESTIMATE				\$ 2,711		
TOTAL ROOM COST				\$ 35,240		

Scarsdale Public Library					July 13, 2015	
ROOM: Study Room						
ROOM#: TBD						
ITEM #	DESCRIPTION	QTY	UNIT COST	COST		
DISPLAY SYSTEMS						
	LED Backlit Data/Video Flat Panel Display Monitor, 55" w/ HDbaseT Input Card	1	\$ 3,378	\$ 3,378		
	Flat Panel Display Fixed Wall Mount	1	\$ 200	\$ 200		
	Flat Panel Monitor Side Attachable Pair of Speakers	1	\$ 600	\$ 600		
				\$ -		
DISPLAY SYSTEMS TOTAL				\$ 4,178		
VIDEO SYSTEMS						
	Digital Media System Switcher 5 x 2	1	\$ 5,000	\$ 5,000		
	DigitalMedia 8G+ Transmitter 201	1	\$ 1,300	\$ 1,300		
	Wireless Presentation Gateway	1	\$ 1,600	\$ 1,600		
				\$ -		
VIDEO SYSTEMS TOTAL				\$ 7,900		
CONTROL SYSTEMS						
	Media Presentation Button Panel	1	\$ 450	\$ 450		
	Control System Programming	1	\$ 1,000	\$ 1,000		
				\$ -		
CONTROL SYSTEMS TOTAL				\$ 1,450		
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	1	\$ 500	\$ 500		
	Audiovisual Equipment Rack; 12 Rack Unit High for Millwork Installation	1	\$ 600	\$ 600		
	Surge Suppressor/Power Distribution w/Remote On	1	\$ 689	\$ 689		
	AV Table Access Panel	1	OFF	OFF		
				\$ -		
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 1,789		
TOTAL EQUIPMENT COST				\$ 15,317		
TOTAL NON-EQUIPMENT COST				\$ 6,127		
TOTAL ROOM COST				\$ 21,444		
END USER DISCOUNT ESTIMATE				\$ 1,532		
TOTAL ROOM COST				\$ 19,912		

Scarsdale Public Library		July 13, 2015		
ROOM: Large Study Room				
ROOM#:				
ITEM #	DESCRIPTION	QTY	UNIT COST	COST
DISPLAY SYSTEMS				
	LED Backlit Data/Video Flat Panel Display Monitor, 80" w/ HDbaseT Input Card	1	\$ 9,678	\$ 9,678
	Flat Panel Display Fixed Wall Mount	1	\$ 200	\$ 200
	Flat Panel Monitor Side Attachable Pair of Speakers	1	\$ 600	\$ 600
				\$ -
DISPLAY SYSTEMS TOTAL				\$ 10,478
VIDEO SYSTEMS				
	Digital Media System Switcher 5 x 2	1	\$ 5,000	\$ 5,000
	DigitalMedia 8G+ Transmitter 201	1	\$ 1,300	\$ 1,300
	Wireless Presentation Gateway	1	\$ 1,600	\$ 1,600
				\$ -
VIDEO SYSTEMS TOTAL				\$ 7,900
CONTROL SYSTEMS				
	Media Presentation Button Panel	1	\$ 450	\$ 450
	Control System Programming	1	\$ 1,000	\$ 1,000
				\$ -
CONTROL SYSTEMS TOTAL				\$ 1,450
MISCELLANEOUS EQUIPMENT AND SYSTEMS				
	Miscellaneous Wire, Cable, Connectors	1	\$ 500	\$ 500
	Audiovisual Equipment Rack; 12 Rack Unit High for Millwork Installation	1	\$ 600	\$ 600
	Surge Suppressor/Power Distribution w/Remote On	1	\$ 689	\$ 689
	AV Table Access Panel	1	OFE	OFE
				\$ -
MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL				\$ 1,789
TOTAL EQUIPMENT COST				\$ 21,617
TOTAL NON-EQUIPMENT COST				\$ 8,647
TOTAL ROOM COST				\$ 30,264
END USER DISCOUNT ESTIMATE				\$ 2,162
TOTAL ROOM COST				\$ 28,102

SCARSDALE PUBLIC LIBRARY PRELIMINARY FURNITURE BUDGET
54 OLMSTEAD ROAD, SCARSDALE, NY 10583

SUBMITTED BY ARENSON OFFICE FURNISHINGS
8/5/2015 R1

NOTE: This is preliminary. There are no selected finishes. Freight and labor charges have been estimated.
Knoll Propeller tables require that they be permanently ganged when using electric. It is not a plug and play system to be reconfigured at will. These tables were used for pricing.

Main Level

Area #	Area	Item	Manufacturer	Model	Fabric/Finish	Quantity	List Price	Ext List	Net Price	Ext Net
1	Entry Vestibule	Lounge Chairs	Knoll D'Urso	2165RC	Gr C Fabric	9	\$ 3,089.00	\$ 27,801.00	\$ 2,162.30	\$ 19,460.70
		Occasional Tables	Andreu World Quattro	ME6804	15.75"h x 18" dia	5	\$ 922.00	\$ 4,610.00	\$ 645.40	\$ 3,227.00
		Reception Desk	BCI	Variety #2 Desk		1		\$ -	\$ 11,500.00	\$ 11,500.00
		Reception Chair	Knoll Regeneration	441HP4SXHC	Generation Fabric	1	\$ 1,165.00	\$ 1,165.00	\$ 815.50	\$ 815.50
		Bench Seating	Knoll Studio	2530Y3C	Gr C Fabric	3	\$ 5,839.00	\$ 17,517.00	\$ 4,087.30	\$ 12,261.90
								Total Area #1	\$ 47,265.10	
2	Café	Stools	Stylex Welcome	WL7111	Chrome/Wood	2	\$ 850.00	\$ 1,700.00	\$ 595.00	\$ 1,190.00
								Total Area #2	\$ 1,190.00	
3	Adult Browsing	Display Modules	BCI	Frontline Square Display Units		2		\$ -	\$ 4,480.00	\$ 8,960.00
		Stacks	BCI	See Area #8				\$ -	\$ -	\$ -
								Total Area #3	\$ 8,960.00	
4	Meeting Room	Tables	Knoll Propeller	60" x 30" w/Power	Laminate	12	\$ 3,348.00	\$ 40,176.00	\$ 2,343.60	\$ 28,123.20
		Conference Chairs	Stylex Welcome	WL2311 (upholstered seat/wood back)	Chrome/GrD/Wood	32	\$ 721.00	\$ 23,072.00	\$ 504.70	\$ 16,150.40
		Side Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	12	\$ 572.00	\$ 6,864.00	\$ 400.40	\$ 4,804.80
			Stylex Welcome	Transport Dolly	N/A	1	\$ 509.00	\$ 509.00	\$ 356.30	\$ 356.30
		Podium	Krug Virtu	62LN-37225011	Wood/Power	1	\$ 4,547.00	\$ 4,547.00	\$ 3,182.90	\$ 3,182.90
								Total Area #4	\$ 49,434.70	
5-Opt 1	Scott Room	Auditorium Seating	KI Lancaster	Auditorium seating w/power/tablet arm	Gr 1 Fabric	176	\$ 585.00	\$ 102,960.00	\$ 409.50	\$ 72,072.00
		Podium	Krug Virtu	62LN-37225011	Wood/Power	1	\$ 4,547.00	\$ 4,547.00	\$ 3,182.90	\$ 3,182.90
								Total Area #5-1	\$ 75,254.90	
5-Opt 2		Side Chairs	Stylex Welcome	WL2112 (armed wood seat and back-hand hole)	Chrome/Wood/Ganging	176	\$ 752.00	\$ 132,352.00	\$ 526.40	\$ 92,646.40
		Podium	Krug Virtu	62LN-37225011	Wood/Power	1	\$ 4,547.00	\$ 4,547.00	\$ 3,182.90	\$ 3,182.90
								Total Area #5-2	\$ 95,829.30	
6	Group Study Room	Tables	Knoll Propeller	(1) 120" x 48" (3) 72" x 48"	Laminate/Power	1	\$ 20,582.00	\$ 20,582.00	\$ 14,407.40	\$ 14,407.40
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	18	\$ 572.00	\$ 10,296.00	\$ 400.40	\$ 7,207.20
								Total Area #6	\$ 21,614.60	
7	Technology Suite	Tables	Knoll Propeller	60" x 24" w/Power	Laminate	7	\$ 5,507.00	\$ 38,549.00	\$ 3,854.90	\$ 26,984.30
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	20	\$ 572.00	\$ 11,440.00	\$ 400.40	\$ 8,008.00
								Total Area #7	\$ 34,992.30	
8 and 9	Main Collection Area	Circulation Desk	BCI	VARIETY #11 Desk		1		\$ -	\$ 16,800.00	\$ 16,800.00
		Circulation Desk Chair	Knoll Regeneration	441HP4SXHC	Generation Fabric	1	\$ 1,165.00	\$ 1,165.00	\$ 815.50	\$ 815.50
		Information Desk	BCI	Variety #8 Desk		1		\$ -	\$ 4,480.00	\$ 4,480.00
		Information Desk Stool	Stylex Welcome	WL7111	Chrome/Wood	2	\$ 850.00	\$ 1,700.00	\$ 595.00	\$ 1,190.00
		Various Sized Tables	Knoll Propeller	(2) 36" Sq, (2) 72" x 36", (20) 72" x 30"	Laminate/Power	1	\$ 84,854.00	\$ 84,854.00	\$ 59,397.80	\$ 59,397.80
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	52	\$ 572.00	\$ 29,744.00	\$ 400.40	\$ 20,820.80
		Display Modules	BCI	Frontline Square Display Units		3		\$ -	\$ 4,480.00	\$ 13,440.00
		Stacks	BCI	Double Faced Slimline Shelving Units		215		\$ -	\$ 1,380.00	\$ 296,700.00
		Stacks	BCI	Single Faced Slimline Shelving Units		212		\$ -	\$ 920.00	\$ 195,040.00
								Total Area #8 & 9	\$ 608,684.10	
10	Reading Gallery	Lounge Chairs	David Edward	2621 (wood arm caps/stainless base)	Gr 3000 Fabric	32	\$ 1,806.00	\$ 57,792.00	\$ 1,264.20	\$ 40,454.40
		Side Tables	Andreu World Raglan	ME8686	24"sq x 14.5"h	14	\$ 1,287.00	\$ 18,018.00	\$ 900.90	\$ 12,612.60
		Coffee Tables	Andreu World Raglan	ME8696	48"x24"x	2	\$ 1,606.00	\$ 3,212.00	\$ 1,124.20	\$ 2,248.40
		Tables	Knoll Propeller	72" x 36" w/Power	Laminate	3	\$ 3,996.00	\$ 11,988.00	\$ 2,797.20	\$ 8,391.60
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	12	\$ 572.00	\$ 6,864.00	\$ 400.40	\$ 4,804.80
		Stacks	BCI	See Area #8				\$ -	\$ -	\$ -
								Total Area #10	\$ 68,511.80	
11	Quiet Reading Area	Tables	Knoll Propeller	72" x 30" w/Power	Laminate	2		\$ -	\$ -	\$ -
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	6	\$ 572.00	\$ 3,432.00	\$ 400.40	\$ 2,402.40
		Lounge Chairs	David Edward	2621 (wood arm caps/stainless base)	Gr 3000 Fabric	6	\$ 1,806.00	\$ 10,836.00	\$ 1,264.20	\$ 7,585.20
		Lounge Chairs	Knoll K Lounge	KL7	Gr C Fabric	3	\$ 1,022.00	\$ 3,066.00	\$ 715.40	\$ 2,146.20

		Side Tables Stacks	Andreu World Raglan BCI	ME8686 See Area #8	24"sq x 14.5"h	2	\$ 1,287.00	\$ 2,574.00	\$ 900.90	\$ 1,801.80
								\$ -	\$ -	\$ -
								Total Area #11		\$ 13,935.60
12	Young Adult	Tables	Knoll Propeller	WL1111 (armless wood seat and back)	Chrome/Wood	3		\$ -	\$ -	\$ -
		Chairs	Stylex Welcome			12	\$ 572.00	\$ 6,864.00	\$ 400.40	\$ 4,804.80
		Poufs	Allermuir	A620	Gr 4 Fabric	7	\$ 1,622.00	\$ 11,354.00	\$ 1,135.40	\$ 7,947.80
		Stacks	BCI	See Area #8				\$ -	\$ -	\$ -
								Total Area #12		\$ 12,752.60
13	Children's Area	Children's Tables	Izzyplus	R45774L	54"dia x 24"h	2	\$ 799.00	\$ 1,598.00	\$ 559.30	\$ 1,118.60
		Children's Chairs	Izzyplus	R45005	SH 15"	16	\$ 389.00	\$ 6,224.00	\$ 272.30	\$ 4,356.80
		Display Modules	BCI	Frontline Dipslay Modules		2		\$ -	\$ 4,480.00	\$ 8,960.00
		Children's Poufs	Iglooplay	Throwing Stones Sm 13-10, Med 13-20, Lg 13-30	Graded In Vinyl	2		\$ -	\$ 1,135.00	\$ 2,270.00
		Computer Station	Knoll Propeller	48" x 24" P2-L22G	Laminate	2	\$ 1,216.00	\$ 2,432.00	\$ 851.20	\$ 1,702.40
		Desk	Knoll Propeller	30" x 60" P2-R14G	Laminate	1	\$ 1,377.00	\$ 1,377.00	\$ 963.90	\$ 963.90
		Desk Chair	Knoll Regeneration	441HP4SXHC	Generation Fabric	1	\$ 1,165.00	\$ 1,165.00	\$ 815.50	\$ 815.50
		Stools	Knoll Studio	Children's Maya Lin Stones	Weighted	14	\$ 468.00	\$ 6,552.00	\$ 327.60	\$ 4,586.40
		Lounge Chairs	David Edward	2621 (wood arm caps/stainless base)	Gr 3000 Fabric	2	\$ 1,806.00	\$ 3,612.00	\$ 1,264.20	\$ 2,528.40
		Amorphic Seat	Iglooplay	Tea Pod 07-20 Large 43.25" x32.25"d x 16"h	Graded In Vinyl	1		\$ -	\$ 1,412.00	\$ 1,412.00
		Stacks	BCI	Cocoon Sitting Pods		8		\$ -	\$ 3,365.00	\$ 26,920.00
								Total Area #13		\$ 55,634.00
14	Children's Program Room	Children's Tables	Izzyplus	R45414L	30" x 60" x 24"h	6	\$ 627.00	\$ 3,762.00	\$ 438.90	\$ 2,633.40
		Children's Chairs	Izzyplus	R45005	SH 15"	36	\$ 389.00	\$ 14,004.00	\$ 272.30	\$ 9,802.80
								Total Area #14		\$ 12,436.20
18	Home Office/Makers Room	Tables	Knoll Dividends	72" x 30" Desk Shell	Laminate	2	\$ 1,482.00	\$ 2,964.00	\$ 1,037.40	\$ 2,074.80
								Total Area #18		\$ 2,074.80
19	Outdoor Reading Deck	Tables	Coalesse	Emu Pattern C02520	41" Dia	8	\$ 1,284.00	\$ 10,272.00	\$ 898.80	\$ 7,190.40
		Chairs	Coalesse	Emu Pattern C02511(Pkg of 2)	Chairs w/Arms	32	\$ 1,116.00	\$ 35,712.00	\$ 781.20	\$ 24,998.40
								Total Area #19		\$ 32,188.80
TOTAL BUDGET MAIN LEVEL - Option 1									\$	1,035,969.50
TOTAL BUDGET MAIN LEVEL - Option 2									\$	1,056,543.90

Upper Level

1	Library Director"s Office	Desk/Return	Knoll Antenna	66" x 24" Desk/84" x 30" Ret	Laminate/Paint	1	\$ 4,323.00	\$ 4,323.00	\$ 3,026.10	\$ 3,026.10
		Desk Chair	Knoll Life	55-3-4-A5I-GH	Alum base/Gr B	1	\$ 1,952.00	\$ 1,952.00	\$ 1,366.40	\$ 1,366.40
		Conference Table	Knoll Saarinen	78" Oval	Laminate	1	\$ 7,472.00	\$ 7,472.00	\$ 5,230.40	\$ 5,230.40
		Conference Chairs	Stylex Welcome	WL2232 (upholstered seat & wood back upholstered panel)	Chrome/GrD/Wood	8	\$ 832.00	\$ 6,656.00	\$ 582.40	\$ 4,659.20
								Total Area #1		\$ 14,282.10
2	Business Office	Desk/Return	Knoll Dividends	72" x 30", 48" x 24", 71" x 19" U-unit	Laminate/Paint	2	\$ 5,943.50	\$ 11,887.00	\$ 4,160.45	\$ 8,320.90
		Desk Chair	Knoll Regeneration	441HP4SXHC	Generation Fabric	2	\$ 1,165.00	\$ 2,330.00	\$ 815.50	\$ 1,631.00
								Total Area #2		\$ 9,951.90
4	Exec Assist Office	Desk/Return	Knoll Dividends	72" x 30", 36" x 24", 90" x 24" U-Unit	Laminate/Paint	1	\$ 5,230.00	\$ 5,230.00	\$ 3,661.00	\$ 3,661.00
		Desk Chair	Knoll Regeneration	441HP4SXHC	Generation Fabric	1	\$ 1,165.00	\$ 1,165.00	\$ 815.50	\$ 815.50
								Total Area #4		\$ 4,476.50
TOTAL BUDGET UPPER LEVEL									\$	28,710.50

Lower Level

1	Staff Work Area	U-Unit Workstation	Knoll Dividends	8' X 6.5' Workstation w/panels	Laminate/Paint/Gr10	1	\$ 2,806.00	\$ 2,806.00	\$ 1,964.20	\$ 1,964.20
		Lateral Files	Knoll Calibre	C2F6342CZCCCC	5h 42"w	4	\$ 2,204.00	\$ 8,816.00	\$ 1,542.80	\$ 6,171.20
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	26	\$ 572.00	\$ 14,872.00	\$ 400.40	\$ 10,410.40
		Tables	Knoll Propeller	66" x 30"	Laminate	24	\$ 3,335.00	\$ 80,040.00	\$ 2,334.50	\$ 56,028.00
								Total Area #1		\$ 74,573.80
2	Ktichenette	Stools	Stylex Welcome	WL7111	Chrome/Wood	8	\$ 850.00	\$ 6,800.00	\$ 595.00	\$ 4,760.00
		Tables	Knoll Propeller	60" x 30" Standing Height	Laminate/Paint	2	\$ 2,216.00	\$ 4,432.00	\$ 1,551.20	\$ 3,102.40
								Total Area #2		\$ 7,862.40
3	Local Histroy	Tables	Knoll Propeller	(2) 48"Dia, (3) 48" x 30" w/Power	Laminate	1	\$ 16,911.00	\$ 16,911.00	\$ 11,837.70	\$ 11,837.70
		Chairs	Stylex Welcome	WL1111 (armless wood seat and back)	Chrome/Wood	8	\$ 572.00	\$ 4,576.00	\$ 400.40	\$ 3,203.20
								Total Area #3		\$ 15,040.90
TOTAL BUDGET LOWER LEVEL									\$	97,477.10

TOTALS	OPTION 1		
	PRELIMINARY TOTAL PRODUCT BUDGET - OPTION 1	\$	1,162,157.10
	ESTIMATED PRODUCT PRICE INCREASES (10%)	\$	116,215.71
	SUBTOTAL	\$	1,278,372.81
	ESTIMATED FREIGHT, DELIVERY & INSTALLATION (25%)	\$	319,593.20
	SUBTOTAL	\$	1,597,966.01
	CONTINGENCY (10%)	\$	159,796.60
	TOTAL OPTION 1	\$	1,757,762.61
	OPTION 2		
	PRELIMINARY TOTAL PRODUCT BUDGET - OPTION 2	\$	1,182,731.50
	ESTIMATED PRODUCT PRICE INCREASES (10%)	\$	118,273.15
	SUBTOTAL	\$	1,301,004.65
	ESTIMATED FREIGHT, DELIVERY & INSTALLATION (25%)	\$	325,251.16
	SUBTOTAL	\$	1,626,255.81
	CONTINGENCY (10%)	\$	162,625.58
	TOTAL OPTION 2	\$	1,788,881.39

Type	Existing Inventory				Proposed Inventory		
	Volumes	Media Format	Volumes/LF of Shelf	LF Req'd	Projected Difference %	Volumes	LF Req'd
MAIN GENERAL READING & COLLECTIONS							
Adult Browsing	3,185	Book	10	319	-20%	2,548	255
Adult Non-Book Media	9,822	CD/DVD/Audio Book	Varies	581	-50%	4,911	290
Adult Fiction	19,278	Book	Varies	2,287	-20%	15,422	1,829
Adult Non-Fiction	43,155	Book	10	4,316	-20%	34,524	3,452
Total Main General Reading & Collections	75,440			7,502		57,405	5,827
REFERENCE							
Micro-film Cabinets		Micro-film			0%	-	-
Newspaper & Magazines ¹	3,471	Newspaper/Magazine	1	243	0%	162	162
Reference	4,503	Book	6	751	-75%	1,126	188
Total Reference	7,974			994		1,288	350
YOUNG ADULT							
Young Adult	4,324	Book	12	360	0%	4,324	360
Total Young Adult	4,324			360		4,324	360
CHILDREN'S							
Children's Reference	635	Book	13	49	0%	635	49
Children's Picture Books	10,004	Book	20	500	0%	10,004	500
Children's Fiction	8,286	Book	Varies	606	0%	8,286	606
Children's Non-Fiction	21,027	Book	Varies	1,645	0%	21,027	1,645
Children's Non-Book Media	4,092	CD/DVD/Audio Book	Varies	233	-50%	2,046	117
Holiday	400	Book	10	40	0%	400	40
Magazines	29	Newspaper/Magazine	1	29	0%	29	29
Total Children's	44,473			3,103		42,427	2,986
STORAGE							
Storage	1,346	Book	10	135	0%	1,346	135
Children's Holiday Storage	1,521	Book	10	152	0%	1,521	152
Children's Storage	692	Book	10	69	0%	692	69
Local History	210	Book	8	26	0%	210	26
Total Support Facilities	3,769			382		3,769	382
TOTAL VOLUMES				135,980		109,213	
TOTAL LF REQUIRED				12,340		9,905	

Notes:

¹ Newspaper & Magazine LF is based upon existing stacks (163 titles in circulation)

# Patron Seats			
Department	Existing	Proposed - Option A	Proposed - Option B
MAIN GENERAL READING & COLLECTIONS			
	40	63	47
REFERENCE			
	44	52	36
TOTAL		115	83
YOUNG ADULT			
	4	19	18
CHILDREN'S			
	21	47	26
*Floor Seating (20occ/sf)	19	18	18
CAFÉ			
	N/A	14	12
TECHNOLOGY SUITE			
	N/A	20	20

# Staff Seats (Excludes Offices)			
Department	Existing	Proposed - Option A	Proposed - Option B
ADMINISTRATION			
	5	5	5
CIRCULATION			
	8	9	8
REFERENCE			
	9	9	9
CHILDREN'S			
	4	4	4
TOTAL	26	27	26

SPACE PROGRAM					OPTION A		OPTION B	
Area No.	Room/Area Name	Existing SF (DA Survey)	Master Plan SF	Difference %	DA Proposed SF	Difference %	DA Proposed SF	Difference %
LOBBY								
	Building's Lobby / Vestibule	510	1,600		360		305	
	NSF Subtotal	510	1,600	214%	360	-29%	305	-40%
CIRCULATION								
	Circulation Desk	285	220		Incl. in Main Collection		Incl. in Main Collection	
	NSF Subtotal	285	220	-15%				
REFERENCE								
	Reference Seating/Workstations	895	Incl. in collection		1,305		855	
	Reference Collection	595	1,200		175		170	
	Reference Desk	100	100		165		165	
	NSF Subtotal	1,590	1,300	-13%	1,645	3%	1,190	-19%
MAIN FLOOR GENERAL READING & COLLECTIONS								
	Adult Browsing	250	185		470		470	
	Adult Non-Book Media	565	500		475		320	
	Newspapers & Magazines	385	Incl. in seating		240		240	
	Copier Area	95	30		175		175	
	Main Collection Seating	990	1,850		1,255		1,325	
	Adult Fiction Stacks	1,915	1,920		1,255		1,380	
	Adult Non-Fiction Stacks	2,640	2,470		3,470		3,030	
	Circulation Desk	Incl. above	Incl. above		80		65	
	Quiet Reading Room (w/seating)	PA	1,100		1,135		Incl. in seating	
	NSF Subtotal	6,840	8,055	17%	8,555	24%	7,005	2%
CHILDREN'S								
	Children's Reference	275	340		110		70	
	Children's Picture Book (w/seating)	515	520		355		280	
	Children's Non-Fiction	435	425		915		880	
	Children's Fiction	505	775		695		450	
	Children's Seating	270	Incl. above		420		345	
	Children's Program Room	PA	650		600		560	
	Children's Manager's Office	55	100		Incl. in Staff Below		Incl. in Staff Below	
	Children's Desk	70	100		65		65	
	NSF Subtotal	2,125	2,910	36%	3,160	47%	2,650	24%
YOUNG ADULT AREA								
		325	500		650		720	
	NSF Subtotal	325	500	54%	650	100%	720	122%
ADMINISTRATION								
	Library Director	190	225		335		335	
	Assistant Director	PA	170		Incl. in Staff Below		Incl. in Staff Below	
	Executive Assistant	PA	N/A		120		120	
	Staff Office	100	130		155		155	
	Account/Business Office	150	180		304		304	
	Staff Lounge	330	700		Incl. in Staff Below		Incl. in Staff Below	
	Reference work room	Various locations	250		Incl. in Staff Below		Incl. in Staff Below	
	Circulation office (behind desk)	445	650		215		140	
	Staff Area	595	1,200		1,650		1,085	
	Children's Staff work room	Incl. in Circ. Office	N/A		Incl. in Staff Above		Incl. in Staff Above	
	NSF Subtotal	1,810	3,505	100%	2,779	57%	2,139	19%

Area No.	Room/Area Name	Existing SF (DA Survey)	Master Plan SF	Difference %	OPTION A		OPTION B	
					DA Proposed SF	Difference %	DA Proposed SF	Difference %
SHARED SPACES								
	Study Rooms (3 Total @ 1 person)	80	80		0		0	
	Study Rooms (3 Total @ 4 person)	PA	N/A		375		375	
	Study Rooms (1 Total @ 10 person)	PA	N/A		225		N/A	
	Meeting Rooms (2 Total @ 20 person)	PA	N/A		980	Subdividable	980	Subdividable
	Scott Room	1,885	1,885		1,885	Subdividable	1,885	Subdividable
	Scott Room Storage	190	250		310		310	
	Scott Room Kitchette	90	N/A		160		160	
	Tech Center	PA	575		665		535	
	Home Office / Maker Room	PA	N/A		225		165	
	Café (w/kitchenette)	PA	Incl. in Lobby		610		395	
	Jaffin Room	280	500		Incl. in Meeting Room		Incl. in Meeting Room	
	Book Fair Room	795	825		650		650	
	Archive Room	PA	275		Incl. Below		Incl. below	
	Local History Room/Public Display	335	900		450	Room only	450	Room only
	NSF Subtotal	3,655	5,290	45%	6,535	79%	5,905	62%
MAINTENANCE AND SUPPORT FACILITIES								
	Staff Toilets & Storage (Admin.)	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Staff Toilets (Single User)	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Children's Toilet	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Family Needs Restroom	PA	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Women's Restroom	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Men's Restroom	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Magazine Storage	965	175		140		140	
	Local History Storage	Incl. in Local History Room	85		Incl. in Local History Room		Incl. in Local History Room	
	Supply Storage Room	395	395		400		400	
	Book Storage	665	665		160		160	
	Misc. Storage	-	790		Book Fair		Book Fair	
	Mtg. Rooms Shared Storage (1st Fl.)	PA	N/A		115		115	
	Administration Storage (2nd Fl.)	PA	N/A		115		115	
	Book Sort Room	PA	N/A		1,030		N/A	
	Mechanical Room	Incl. in GSF	Incl. in GSF		Incl. in GSF		Incl. in GSF	
	Custodian's Office	445	475		330		330	
	NSF Subtotal	2,470	2,500	1%	2,835	15%	1,805	-27%
	LIBRARY TOTAL NSF	19,610	25,880	67%	26,519	72%	21,719	62%
	NSF Difference		5,384		6,023		1,223	
	LIBRARY TOTAL GSF	* 31,160	38,820	100%	36,860	100%	35,271	100%
	GSF Difference w/existing		7,660	25%	5,700	18%	4,111	13%
	GSF Difference w/Master Plan		N/A	N/A	(1,960)	-5%	(3,549)	-9%

Notes:

NSF (Net Square Feet) = Program Area

GSF (Gross Square Feet) = NSF + Corridors, stairs, elevators, bathrooms, building structure, exterior envelope, etc.

PA = New proposed areas not existing in current building

* Includes 1,500 sf of recoverable program area from sloped floor locations in the basement

DattnerArchitects
Scarsdale Public Library Renovation

Pre-Schematic Phase (7 Weeks)	March 27, 2015: Architect Site Visit and procure existing building drawings
	Week 1 (March 30-April 3, 2015: School Vacation Begins April 2): -Send program questionnaires to library -Review existing drawings and materials -Send consultants existing building materials -Perform CADD drawings of existing building
	Week 2 (April 6 – 10, 2015: School Vacation ends April 10): -April 6, 2015: Consultant kick-off Meeting , MEP / Structural and Civil -April 6, 2015: Meeting - Staff Interviews – Review program questionnaire with Library Director and departments. -Program & Operational Development -Develop scope of work and space program -Review zoning requirements -Send consultants CADD backgrounds
	Week 3 (April 13-17, 2015): -Develop scope of work and space program
	Week 4 (April 20-24, 2015): -April 24, 2015, 2:00 p.m., Dattner Office, Library Building Committee -Develop scope of work and space program
	Week 5 (April 27-May 1): -May 1, 2015, Submit draft report of scope of work statement and space/program document for review.
	Week 6 (May 4-8, 2015): -Address final comments from draft report. -May 8, 2015: Final comments due -May 8, 2015, 1 p.m., Scarsdale Public Library, Library Building Committee
Week 7 (May 11-15, 2015): -May 11, 2015: Pre-Schematic Submission -May 12, 2015, 7 p.m. Scott Room – Capital Campaign Meeting	

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Schematic Design Phase (11 Weeks)	Week 8 (May 18-22, 2015): -Develop approved concept program into architectural / planning options
	Week 9 (May 25-29, 2015): -May 28, 2015, Design Team Meeting - MEP, Civil, & Structural -Develop architectural / planning options
	Week 10 (June 1-5, 2015): -June 4, 2015, 2:00 p.m., Dattner Office, Library Building Committee – Progress & AV/IT
	Week 11 (June 8-12, 2015): -Develop preferred design options
	Week 12 (June 15-19, 2015): - Develop preferred design option and preliminary materials and finishes -June 18, 2015, Design Team Meeting: Lighting, Acoustical & LEED
	Week 13 (June 22-26, 2015): -Develop preferred design option and preliminary materials and finishes -June 23, 2015, Design Team Meeting: Structural -June 25, 2015, 3:30 p.m., Scarsdale Public Library, Library Building Committee – Progress & Civil / Landscaping
	Week 14 (June 29-July 3, 2015): -Develop preferred design option. -July 2, 2015, Design Team Meeting: MEP & LEED
	Week 15 (July 6-10, 2015): -Develop preferred design option.
	Week 16 (July 13-17, 2015): -July 16, 2015, 2:00 p.m., Dattner Office, Library Building Committee – Draft SD Report -Submit pricing set for cost estimating
	Week 17 (July 20-24, 2015): -Coordinate final comments
	Week 18 (July 27-31, 2015): -July 31, 2015 – SCHEMATIC DESIGN SUBMISSION -Plans, sections, elevations and renderings -Narratives Architectural, MEP, civil, landscaping, AV, IT, roofing -Preliminary furniture layouts -Cost estimate -LEED feasibility report

HIATUS FOR FUNDRAISING

Design Development (13 Weeks)	<ul style="list-style-type: none"> -Design Development Submission (13 weeks) -Architectural / M/ E/ P, structural and site plan drawings -Outline specifications -Materials & finish sample board -Furniture plans -Utility service applications -Cost estimate -Response to SPL review comments
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Construction Documents (22 Weeks)	<ul style="list-style-type: none"> -Construction Documents Submission (22 weeks) -Project manual -Contract drawings & specifications -Final finishes and materials -Agency filing application forms and approvals -Cost estimate -Response to SPL review comments -Furniture plans -Manufacturer's product literature and specifications -Bid documents
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Bid Services (6 Weeks)	<ul style="list-style-type: none"> -Bid Services – Phase I only (6 weeks) -Clarifications / supplemental drawings & information -Addenda -Bid evaluations
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DattnerArchitects

MEETING MINUTES

June 4, 2015

PROJECT	Scarsdale Public Library	
RE	Meeting Minutes	
DATE	June 4, 2015	LOCATION Dattner Office
ATTENDEES	ORGANIZATION	EMAIL
Beth Bermel	Scarsdale Public Library	ebermel@wlsmail.org
Terri Simon	SPL Library Building Committee	simon.terri@verizon.net
Dara Gruenberg	SPL Library Building Committee	Dara513@gmail.com
Terry Singer	SPL Library Building Committee	terry.k.singer@gmail.com
Susan Kessler Ross	SPL Library Building Committee	susan.kessler.ross@gmail.com
Steve Kessler	SPL Library Building Committee	Kessls3535@gmail.com
Paul Zaicek	Village of Scarsdale	pzaicek@scarsdale.com
Daniel Heuberger	Dattner Architects (DA)	dheuberger@dattner.com
Karyn Lee	Dattner Architects (DA)	klee@dattner.com
Benny Tang	Dattner Architects (DA)	btang@dattner.com
Katherine Lai	Dattner Architects (DA)	klai@dattner.com
Matt Tibbals	Shen Milsom & Wilke	mtibbals@smwllc.com
Dan Barton	Shen Milsom & Wilke	dbarton@smwllc.com

Distribution: All attendees

ITEM/DESCRIPTION	ACTION BY	DUE DATE
1. Purpose of Meeting: Review draft of Pre-Schematic Report		
2. Information pending: Site/ Utility survey; Geotechnical survey and asbestos report to be provided by Village.		
2.1 Site /Utility Survey	P.Z.	6/12
2.2 Hazardous Material Report	P.Z.	TBD
2.3 Provide exploratory probes and geotechnical test locations to Village.	DA	6/5
4. Schematic Design – Proposed design maintains original appearance of main façade from Olmsted Road. Addition proposed off east entry court and a scaleable addition wrapping the south/ west portions of the 70's building oriented towards views.		
4.1 Additions proposed to have green roofs to address stormwater management.		
4.2 High mansard roof being studied for potential photovoltaics – structural capacity of building being considered.		
4.3 Additions on south / west are within the 100' Wetlands Controlled area. Village permit and a mitigation plan is required. DA to review understanding with Village Planner Liz Marinen.	DA	6/11
4.4 Site Plan, pg. 2 shows 11 parking spaces on the north which were noted on the '70's Construction Set. Parking spaces were not built. Review if constructing Parking spaces in that location are feasible.	DTS	6/25

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MEETING MINUTES

June 4, 2015

4.5	Relocation of impacted rain gardens to be studied.	DTS	6/25
4.6	Site Plan, pg. 2 shows 11 parking spaces on the north which were noted on the '70's Construction Set. Parking spaces were not built. DA to review if constructing those spaces are feasible.		
4.7	Option C (full scheme) pg. 3-10. Ground floor dedicated to public functions with discrete after-hours area in the front, book mezzanine completely removed allowing unobstructed views across library and full reading gallery wrapping 70's collection area; the second floor houses Administration and the basement level is modified for staff, local history, storage and provisions for a future book sorting room. Refer to pg. 10 for floor features.		
4.8	Option B (moderate scheme) pg. 11. Differences from Option C: Ground floor contains public and staff functions, bookstack is reduced to improve visibility in library and reading gallery on south and west sides of 70's collection area; the second floor mezzanine is reduced and proposed as Young Adult; the basement level magazine storage remains as is and no book sorting Room. Refer to pg. 11 for floor features.		
4.9	Option A (minimal scheme), pg. 12. Differences from Option C: Ground floor contains public and staff functions, bookstack is modified minimally to integrate the circulation desk and reading gallery limited to south of 70's collection area; no modifications to bookstack mezzanine on the second floor and the basement level magazine storage remains as- is and no book sorting room. Reduced general collection. Refer to pg. 12 for floor features. Optional to remove one of the Meeting Rooms.		
5.	Phasing of construction is tied to maintaining the functionality of the library and not campaign needs.		
6.	Research the cost of temporarily re-locating the library during construction. Site must be in Scarsdale.	LBC	
7.	AV – Review attached notes by Shen Milsom Wilke.	LBC	6/25
8.	IT – Review attached notes by Shen Milsom Wilke.	LBC	6/25
9.	Provide contact for Westchester Library System IT.	BB	6/18
9.	Next Steps		
9.1	Library Board Committee and Library Board, to review the June 4, 2015 Progress Meeting handout. Comments to be communicated to Dattner through Beth Bermel. Subsequent to meeting comments issued to DA.	BB	CLOSED
9.2	Upcoming Library Building Committee – Dattner to further develop design with Library comments and present space layouts.	DA	6/25
9.3	Dattner to attend the 7.13.15 Library Board Meeting. SPL 7:30 P.M.	DA	7/13

PREPARED BY K. Lee

ATTACHMENTS

- Scarsdale Public Library Renovation and Addition – Progress Meeting – June 4, 2015, 15 pages.
- AV Interview Notes – June 4, 2015, 5 pages.
- IT Interview Notes – June 4, 2015, 2 pages.

These minutes will be considered correct and complete unless the author is notified of any corrections or additions within 5 business days of issue.

MEETING MINUTES

June 25, 2015

PROJECT	Scarsdale Public Library	
RE	Meeting Minutes	
DATE	June 25, 2015	LOCATION Dattner Office
ATTENDEES	ORGANIZATION	EMAIL
Beth Bermel	Scarsdale Public Library	ebermel@wlsmail.org
Terri Simon	SPL Library Building Committee	simon.terri@verizon.net
Dara Gruenberg	SPL Library Building Committee	Dara513@gmail.com
Terry Singer	SPL Library Building Committee	terry.k.singer@gmail.com
Susan Kessler Ross	SPL Library Building Committee	susan.kessler.ross@gmail.com
Steve Kessler	SPL Library Building Committee	Kessls3535@gmail.com
Paul Zaicek	Village of Scarsdale	pzaicek@scarsdale.com
Daniel Heuberger	Dattner Architects (DA)	dheuberger@dattner.com
Karyn Lee	Dattner Architects (DA)	klee@dattner.com
Benny Tang	Dattner Architects (DA)	btang@dattner.com
Katherine Lai	Dattner Architects (DA)	klai@dattner.com
Donna Maiello	Divney Tung & Schwalbe	dmaiello@divneytungschwalbe.com

Distribution: All attendees

Note: New meeting items noted in **bold**.

ITEM/DESCRIPTION	ACTION BY	DUE DATE
1. Purpose of Meeting: Review progress of Schematic Design		
2. Project Progress		
2.1 LEED feasibility report in progress – Architect, Landscape Architect, Lighting Designer, MEP Engineers met with the sustainability consultant YR&G and reviewed scope and the LEED checklist.		
2.2 Structural designs for the additions and modifications developed with Hage Engineering.		
2.3 Site /Utility Survey. Subsequent to meeting the survey was provided. Some requested information not provided. DA issued list to PZ of remaining items.	P.Z.	TBD
2.2 Hazardous Material Report. Subsequent to meeting PZ notified that Applied Technology will have report completed July 13th.	P.Z.	CLOSED
2.3 Provide exploratory probes and geotechnical test locations to Village. Subsequent to meeting, probe locations sent and PZ requested proposals.	DA	CLOSED
4. Schematic Design Progress:		
4.1 In advance of the SD cost estimate, DA is concerned that the SPL's approved program is over the preliminary budget set at the Master Plan stage. We Anticipate the maximum scheme could be at least 50% more than budget. The cost estimate will be priced as a "kit of parts", with a		

MEETING MINUTES

June 25, 2015

	larger scheme Option A and a smaller scheme Option B so that it can be scaled back to reduce cost and program, if necessary.		
4.2	Site / Civil		
4.2.1	Rain gardens and green roofs are the recommended methods for addressing new stormwater mitigation required by the new project.		
4.2.2	Rain gardens address the stormwater from the existing roofs. Rain gardens that are affected by the building additions need to be replaced.		
4.2.3	Stormwater from the new additions shall be taken care of by the green roofs.		
4.2.4	Concern that south side of the reading gallery is looking over the parking area. DTS to study if taller plantings to screen is feasible as the area is currently occupied with rain garden.		
4.3	Additions on south / west are within the 100' Wetlands Controlled area. Village permit and a mitigation plan is required. DA to review understanding with Village Planner Liz Marinen.	DA	7/16
4.4	Site Plan, pg. 2 shows 11 parking spaces on the north which were noted on the '70's Construction Set. Parking spaces were not built. Review if constructing Parking spaces in that location are feasible. Subsequent to meeting confirmed parking requirements with Village Planner. Ch. 310.A.3 Village Zoning code bases parking requirements on the "main assembly room on the premises of a....library." based on Scott room occupancy 67 spaces are required. Current lot capacity is 107 spaces and therefore complies. Parking is not in the project scope.	DTS/ DA	CLOSED
4.5	Removed the north leg of the reading gallery to minimize disturbance to site and simplify design.		
4.6	SPL requested outdoor area with views of the pond to the west. Concerns about a deck on the west: Further encroachment on wetlands, conflicts with rain garden, site disturbance as piles are required due to poor soil conditions. Subsequent to meeting, DA proposed a deck on the north-west corner of the addition which addresses the above concerns.		
4.7	SPL requested that the café be defined as a separate space. Café moved to Children's Program Room.		
4.8	Children's Program Room moved to YA.		
4.9	YA moved to the southeast corner of the Reading Gallery.		
4.10	Large group study room moved to south of Quiet Reading.		
5.	AV – Review attached notes by Shen Milsom Wilke. Subsequent to meeting program of rooms confirmed.	LBC	CLOSED
6.	IT – Review attached notes by Shen Milsom Wilke. Subsequent to meeting reviewed.	LBC	CLOSED
9.	Provide contact for Westchester Library System IT. Subsequent to meeting provided.	BB	CLOSED
10.	Next Steps		
9.1	Provide SPL Building Committee with revised plans, Children's Room perspective and site plan. Subsequent to meeting revised drawings issued on 7/1/15.	DA	CLOSED
9.2	Upcoming Library Building Committee	DA	7/16

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MEETING MINUTES

June 25, 2015

9.3 Dattner to attend the 7.13.15 Library Board Meeting. SPL 7:30 P.M.	DA	7/13
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PREPARED BY K. Lee

ATTACHMENTS

none

These minutes will be considered correct and complete unless the author is notified of any corrections or additions within 5 business days of issue.

DattnerArchitects

MEETING MINUTES

August 4, 2015

PROJECT	Scarsdale Public Library		
RE	Meeting Minutes		
DATE	July 16, 2015	LOCATION	Dattner Office
ATTENDEES	ORGANIZATION	EMAIL	
Beth Bermel	Scarsdale Public Library	ebermel@wlsmail.org	
Terri Simon	SPL Library Building Committee	simon.terri@verizon.net	
Dara Gruenberg	SPL Library Building Committee	Dara513@gmail.com	
Terry Singer	SPL Library Building Committee	terry.k.singer@gmail.com	
Susan Kessler Ross	SPL Library Building Committee	susan.kessler.ross@gmail.com	
Steve Kessler	SPL Library Building Committee	Kessls3535@gmail.com	
Paul Zaicek	Village of Scarsdale	pzaicek@scarsdale.com	
Daniel Heuberger	Dattner Architects (DA)	dheuberger@dattner.com	
Karyn Lee	Dattner Architects (DA)	klee@dattner.com	
Benny Tang	Dattner Architects (DA)	btang@dattner.com	
Katherine Lai	Dattner Architects (DA)	klai@dattner.com	

Distribution: All attendees

ITEM/DESCRIPTION	ACTION BY	DUE DATE
1. Purpose of Meeting: Review Schematic Report Draft		
2. Project Progress		
2.1 Site /Utility Survey. Subsequent to meeting the survey was provided. Some requested information not provided. DA issued list to PZ of remaining items.	P.Z.	TBD
3. Schematic Design Report Comments		
3.1 Correct existing rain garden graphics on Page 5.	DA	8/4
3.2 Add key plans to the perspective drawings.	DA	8/4
3.3 Concern that elevation drawings are too abstract and the representation of the materials in black and white is too stark. DA to add a tone to elevations to make the drawing warmer.	DA	8/4
3.4 Provide exterior material options and information to the Library Buidling Committee.	DA	8/4
3.5 Lighten the line weights in the Center Building Section at the entry area to improve clarity of depth.	DA	8/4
3.6 Lighten the line weights in the East West Section to improve clarity of depth.	DA	8/4
3.7 Concern that light from the North-west corner of the reading gallery will be seen across Olmsted. Discussed trees / plantings to screen building addition.		
3.8 Sustainability Report		

MEETING MINUTES

August 4, 2015

3.8.1	Challenges for obtaining LEED are fulfilling Pre-Requisites for minimum energy performance and minimum indoor air quality performance. It may be necessary to replace the baseline mechanical system, existing air distribution system and possibly provide new equipment capacity and outdoor air supply.	
3.8.2	Additional concern is that with a phased construction it will take longer to build and may exceed the period under which the current version of LEED applies.	
3.8.3	Include in report statement that given the challenges and cost, recommend that more beneficial approach would be to focus on key improvements which offer the most value to the project.	DA 8/4
4.	Next Steps	
4.1	Cost estimate due 7.31.15. Subsequent to meeting cost estimate was not submitted on time. Meeting to review estimate deferred to 8/6.	
4.2	Issue 8 hard copy reports to LBC	DA 8/6
4.3	Scarsdale Public Library Board Meeting 8/10/15.	

PREPARED BY K. Lee

ATTACHMENTS

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