BUILDING USE AUDIT - CONDITION ASSESSMENT
Town of Hadley, Massachusetts

Goodwin Memorial Library

50 Middle Street

Year Constructed:

Construction Type: IIIB
Fire Sprinklers: No
Approximate Building Area per Floor:

Basement:	1,750 SF
First Floor:	1,750 SF
Second Floor:	1,750 SF
Total Area:	5,250 SF

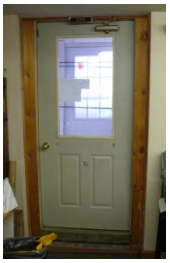
Documents used in study:
Original Building Drawings and Specifications

General:

The Library is generally a nice well maintained building but has major challenges in the basement. Interior access to the basement is through a stair in the back of the building that leads into a hallway before entering a doorway into the public space. The Hallway and Stair have major headroom problems and steeply sloping floors that could be extremely hazardous in an emergency evacuation. This situation has developed over time due to the installation of the two restrooms For two exits to occur in the Basement this route would need to comply, but it is also too close to the exit that passes through a covered stair to the exterior.
The Second Floor, until recently, has been used as an historical museum but the space is currently unused.

CONDITION ASSESSMENT

Life Safety

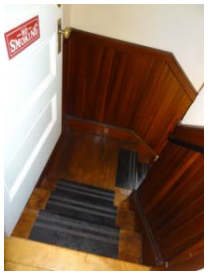
2 Although a ramp provides access to the First Floor, there is no handicapped access between floors. An Elevator should be added.

2 The one exit from the lower level needs illuminated exit signs.

2 Rear of basement is hazardous, examples include:
Headroom is too low below ductwork and the furnace flue (hot).
Stair and restrooms have low headroom.
Floors are steeply sloping and one slope is conical in shape.
This area needs to be re-designed to eliminate these conditions.

2 There are exposed rafters over the exit stair from the basement to the exterior. There is no insulation in roof. Insulate roof and add roof vents. Sheetrock ceiling and paint.

2 The walls on the second floor consist of horizontal wood boards over the wall studs. the boards are covered with hessian, newspaper, paint, lining paper and paint. This assembly should be replaced with painted sheetrock to reduce flammability. Trim at wainscoting may need to be modified to accommodate the extra thickness of the sheetrock. (There are two sections of second floor walls that have been damaged by previous leaks, and these will be repaired when the sheetrock is added.)



2 There are no upper landings on the stairs to the second floor. Spaces should be re-worked to create a landing and clearance at the doors.

4 New Fire Sprinkler System.

Universal Accessibility

3 Stairs have projecting nosings. Add painted tapered wood (siding) under nosings.

3 There are no accessible restrooms. Provide new accessible restrooms and remove existing restrooms in basement.

3 Interior stair to basement is open underneath. Add guardrail under stair to keep headroom clearance at 6'-8".

3 Exit door to second floor fire escape is too narrow and step up to door is too high.

3 Exterior step handrails rails, both front and side, do not have extensions and need to be replaced.

3 Interior stair handrails do not have extensions. There is insufficient space to add these except at the exit stair out of the basement where they should be added.

3 Doors have knob sets that need to be replaced with lever handles.

Exterior

3 South entrance steps are cracked. Cut out cracks and apply epoxy patching. Repaint steps.

2 West entrance steps are badly cracked and surface patching is breaking off. It is recommended that the steps be replaced with new concrete steps. It is recommended that the cracked side of the stairs be closed off untill the replacemnt occurs.

3 There is the start of rust on the handrails of the ramp. These are minor in nature but should be touched up to control the spread of rust.

3 Repointing is still required in areas. The chimney (viewed from the ground) appears to be in relatively poor condition; further review is recommended.

4 Perimeter foundation drainage was reportedly installed (per the 2007 Ford Gillen Architects report) to address water issues in the Basement and as an alternate to installing gutters and downspouts. Exterior grading should be reviewed and modified (as appropriate) to ensure that water shedding from the hipped roof is directed away from the building foundation walls at all locations. The use of a sloped, impervious layer below the surface would be beneficial in this regard.

Interior

3 Carpet in basement is stained. Replace carpet in basement with carpet tile.

4 Plaster ceilings are cracking. On the first floor these cover 10% of the ceiling; in the front stairs the cracking is severe on the walls and ceiling; on the second floor cracks extend from corners of most walls. Generally repair plaster cracks but in the stairs, walls and ceiling will need to be re-plastered.

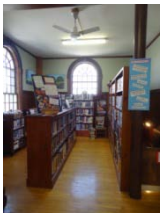
4 A few bricks on the exterior walls of the basement have spalled. Replace individual bricks.

4 First floor fireplace brick heath has open joints and these should be re-pointed

3 Trim is loose at the perimeter of the second floor ceiling. Two sections of the boards should be re-secured.

3 There are two broken window lights on the second floor that require replacement. Also the lay-light has a broken section requiring replacement.

4 Interior of building should be re-painted.



Energy & Water Conservation

3 Windows are single glazed without storm panels. It is recommended that interior storm panels be added to retain the exterior appearance of the building.

Mechanical

3 Provide a new outside air ventilation system. The recommended ventilation system would generally consist of a heat recovery ventilator which would temper outside air prior to delivering it to the return air side of the furnace. If a new outside air ventilation system is provided, replace the programmable thermostat with one which has auxiliary contacts to operate the ventilation system whenever the building is operating in occupied mode.

3 Provide a split air conditioning system for the basement, similar to the split air conditioning systems serving the upper floors, to replace the portable dehumidifier.

Electrical

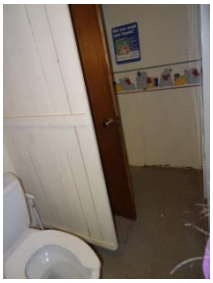
4 Replace the lighting with new fluorescent and LED fixtures.

4 Replace the occupancy sensors for lighting control with a centralized master lighting switch located at the front door.

3 Replace the subpanel on the second floor with a larger panel.

3 The fire alarm system should be tested and verified to be working properly. If the system needs upgrading it is recommended to match the system that is currently being used in the Public Safety Complex.

Plumbing



2 Replace the water closets and lavatories in the facility. Provide accessible fixtures where required. Water closets should be low flow, and lavatories should be provided with flow restrictors.

PROGRAM INFORMATION

The library is undersized for the community's population but the recently vacated second floor can provide important program functions for the Library. However, use will be limited as second floor capacity is insufficient for library stacks. Stacks will need to remain on the first and lower levels.

The lower level has many problems, as described in the assessment, that need to be resolved for safe public access and use of that level.

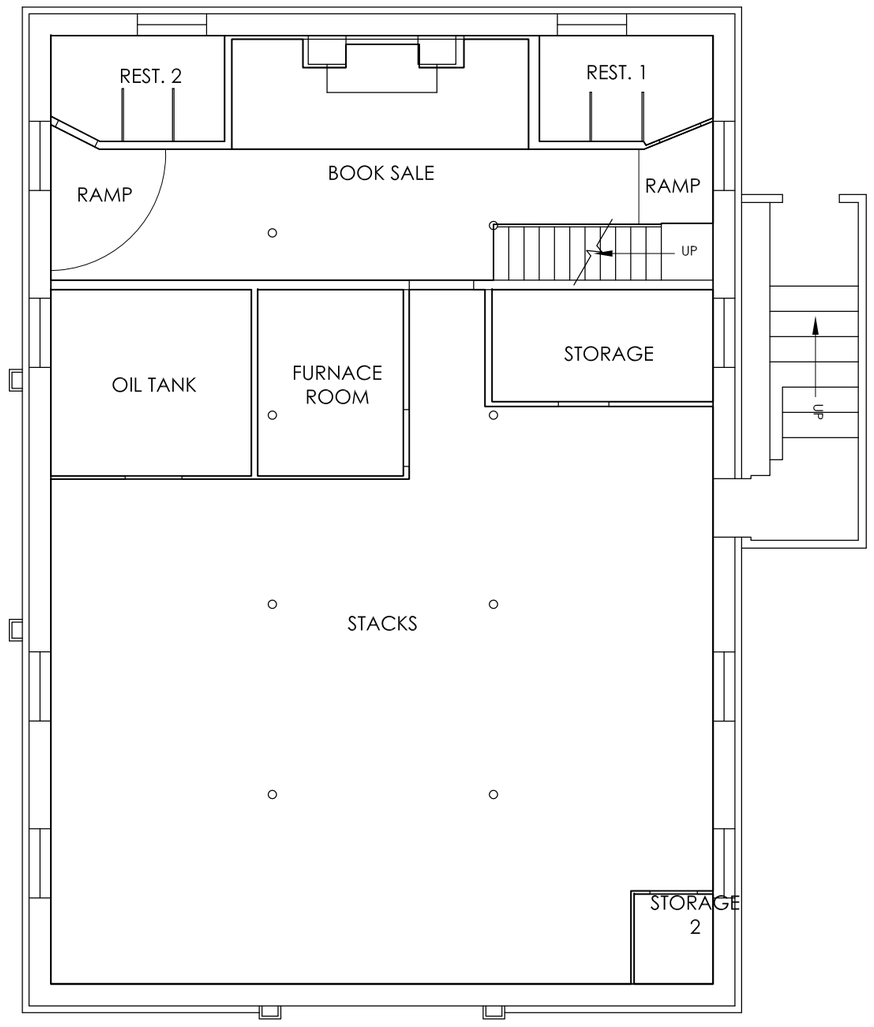
A new stair, elevator and restroom addition will enable the floors to be fully accessible and provide a second means of egress for each of the levels.

Parking is very limited for the library but has the convenience of the use of adjacent Senior Center parking lot.

LIST OF DRAWINGS SHOWING EXISTING AND PROPOSED PLANS:

EXL-1 Existing Basement Floor Plan
EXL-2 Existing First Floor Plan
EXL-3 Existing Second Floor Plan

PRL-1 Proposed Basement Floor Plan
PRL-2 Proposed First Floor Plan
PRL-3 Proposed Second Floor Plan



BASEMENT FLOOR PLAN

GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

D·R·A

Drummey Rosane Anderson, Inc.
225 Oakland Road, Studio 205
South Windsor, Ct 06074

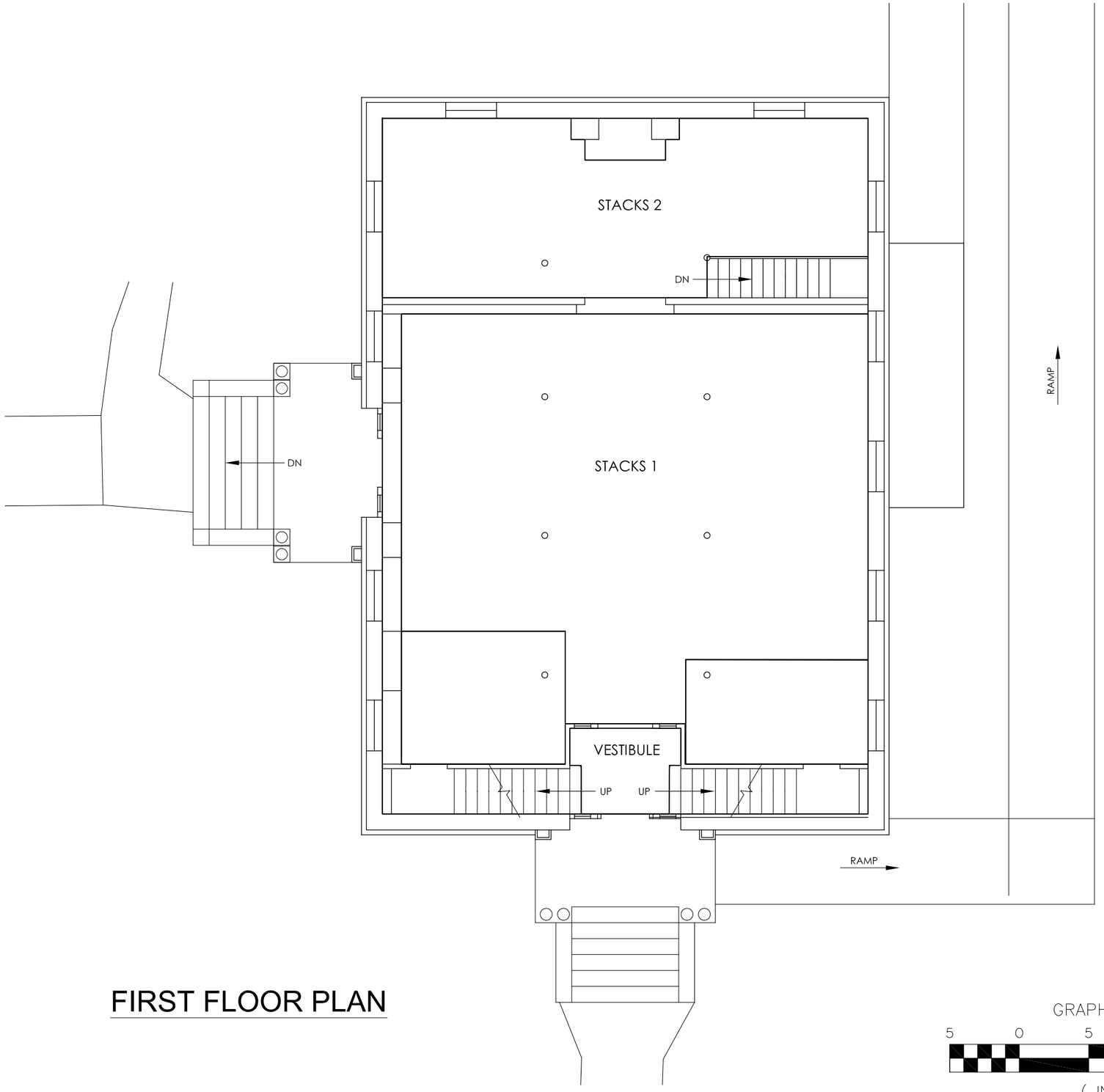
Planning 860-644-8300
Architecture 860-644-8301 fax
Interior Design info@draws.com

Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
EXISTING BASEMENT FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

EXL-1



FIRST FLOOR PLAN

GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

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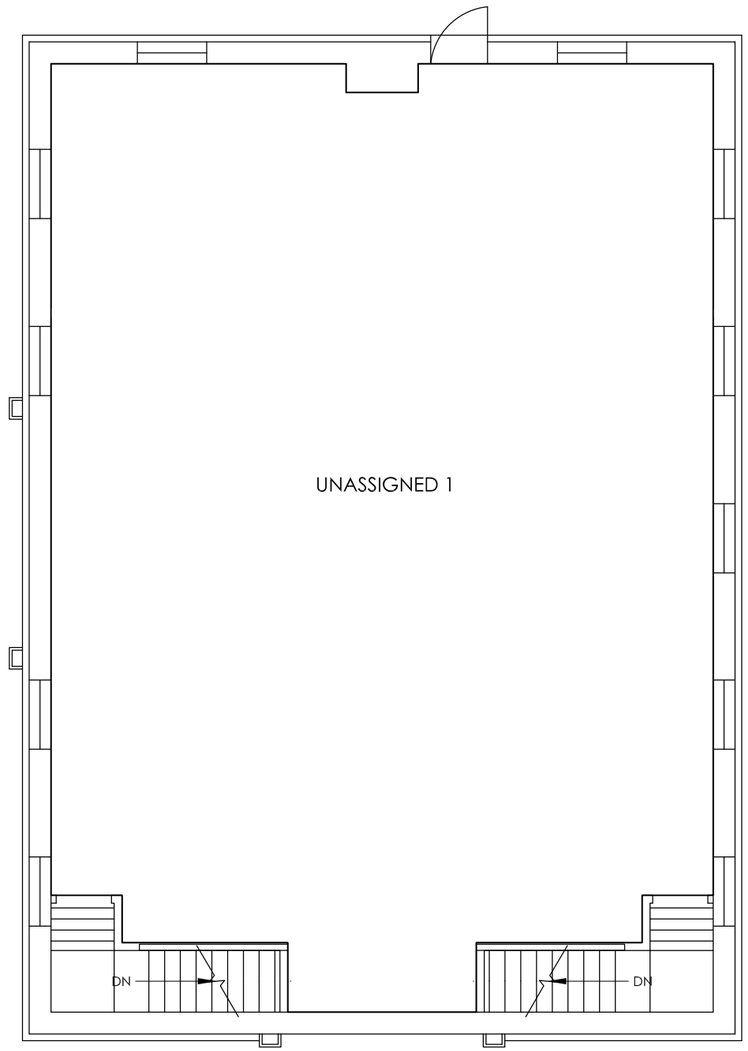
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
EXISTING FIRST FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

EXL-2



SECOND FLOOR PLAN

GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

Drummey Rosane Anderson, Inc.
225 Oakland Road, Studio 205
South Windsor, Ct 06074

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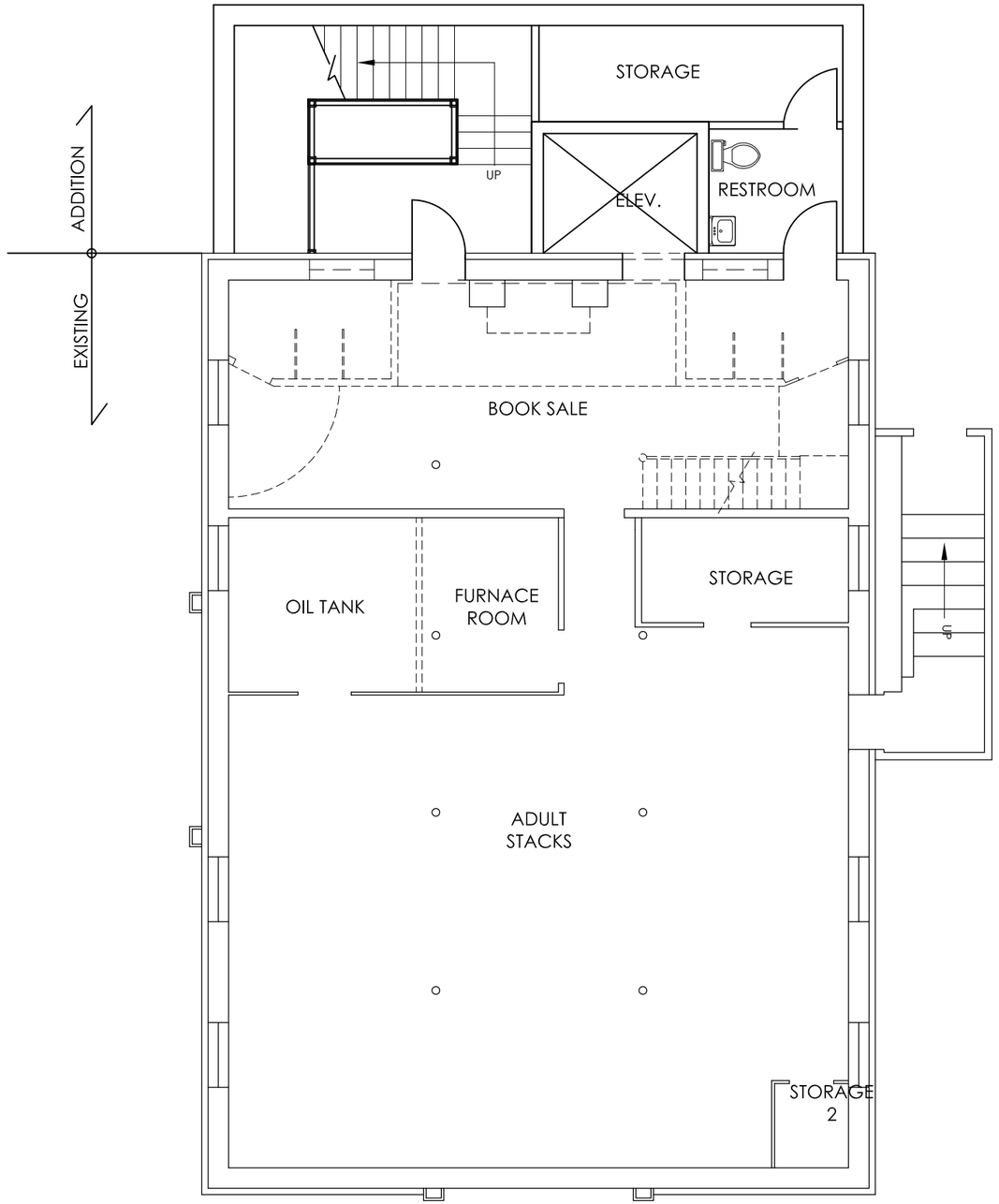
Architecture 860-644-8301 fax
Interior Design info@draws.com

Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
EXISTING SECOND FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

EXL-3



GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

BASEMENT FLOOR PLAN

D·R·A

Drummey Rosane Anderson, Inc.
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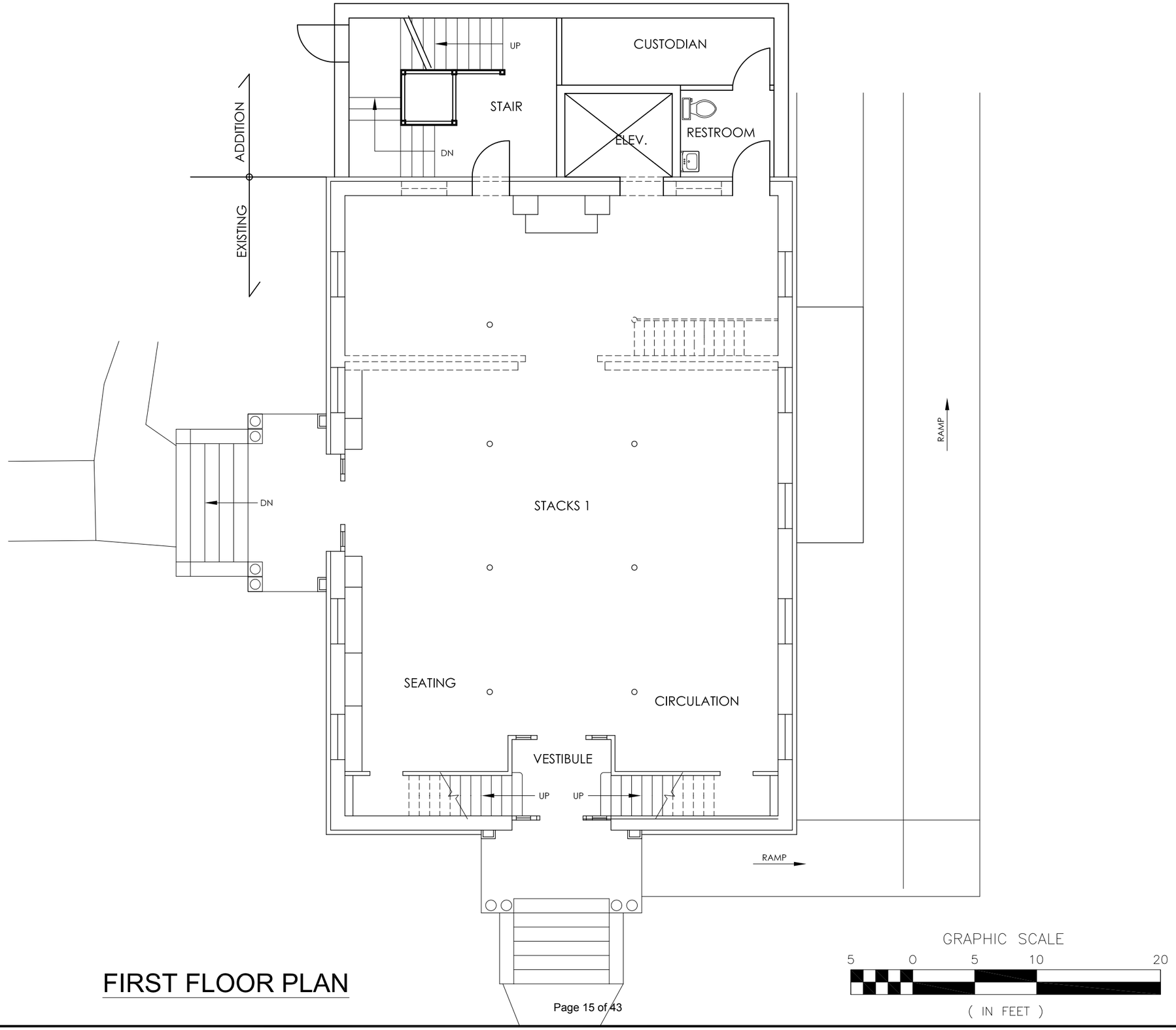
Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
PROPOSED BASEMENT FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

PRL-1



FIRST FLOOR PLAN

GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

D·R·A

Drummey Rosane Anderson, Inc.
225 Oakland Road, Studio 205
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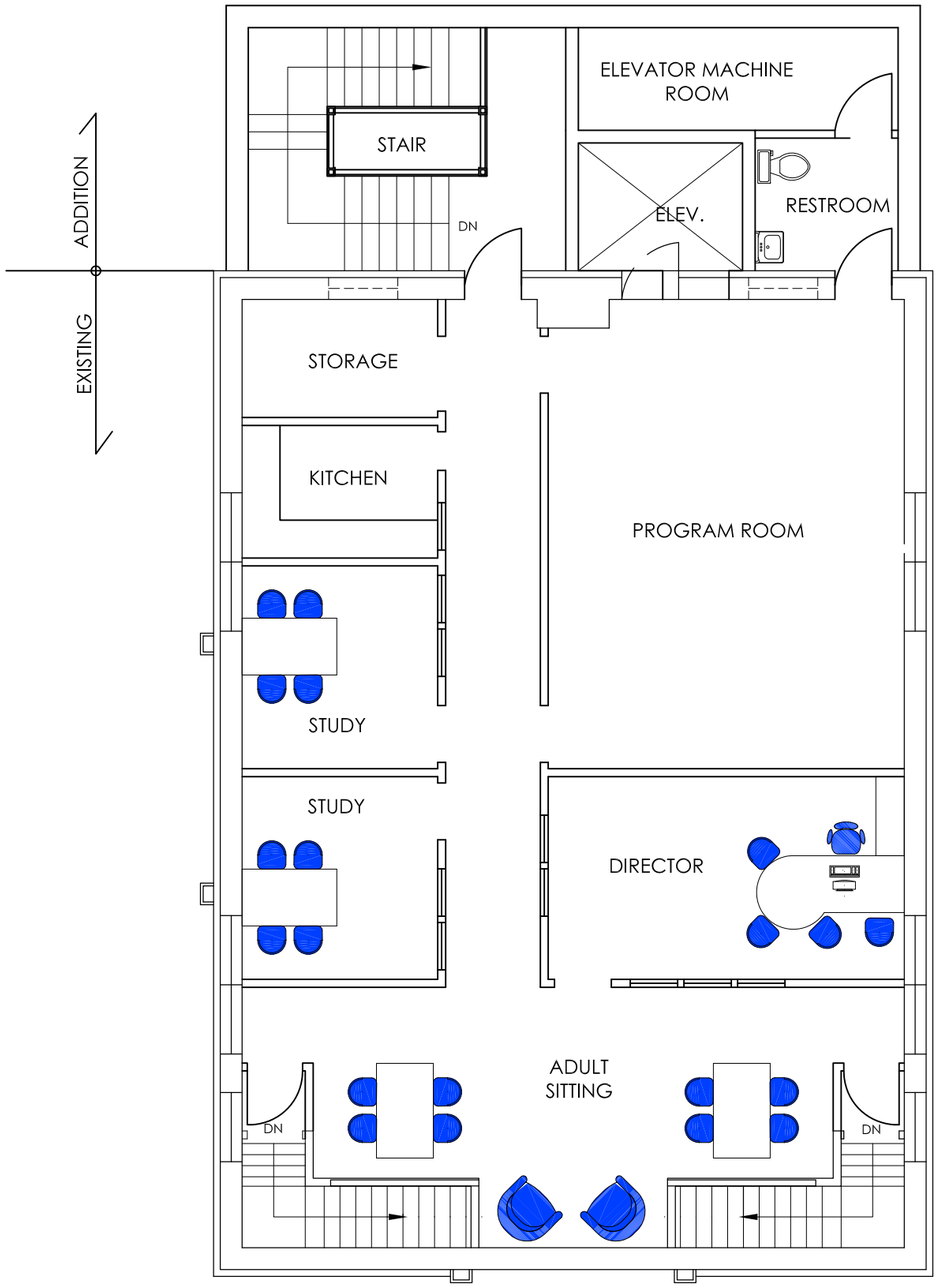
Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
PROPOSED FIRST FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

PRL-2



GRAPHIC SCALE

5 0 5 10 20

(IN FEET)

SECOND FLOOR PLAN

D·R·A

Drummey Rosane Anderson, Inc.
225 Oakland Road, Studio 205
South Windsor, Ct 06074

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Architecture 860-644-8301 fax
Interior Design info@draws.com

Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

GOODWIN MEMORIAL LIBRARY
PROPOSED SECOND FLOOR PLAN

Scale: 1/8"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

PRL-3

MUNICIPAL FACILITIES STUDY and PLANNING
Town of Hadley, Massachusetts

Goodwin Memorial Library

Structural

Introduction:

Foley Buhl Roberts & Associates, Inc. (FBRA) is collaborating with Drummey Rosane Anderson, Inc. (DRA) in the study of existing conditions and planning options for the Goodwin Memorial Library, located at 50 Middle Street in Hadley. The three-level, 5,928 square foot building was constructed in 1902.

Program elements at the Basement Floor include stacks, storage rooms, restrooms and a mechanical space. The Basement is serviced by one stair at the back (northeast) section of the building. An exterior egress stair from this level is located on the east side. Collections, reference and computers are located at the (main) First Floor level. The Second Floor, accessed by two opposing stairs at the front (south) side of the building, is a large, open, unassigned space. There is no elevator; however, a handicap ramp was recently constructed along the east side of the building, wrapping around the south side and connecting to the main entrance.

The site slopes downwards (approximately ½ story) from the front (south) side to the back (north) side of the building. The Basement Floor is 5 to 6 feet below the average, exterior finished grade.

Architectural/Structural documents were made available by the Library for review and use in the preparation of this report. Documents provided included the following:

- Original Architectural Drawing (Nos. 2, 3, 4 and 8), prepared by Guy Kirkham, Architect (Springfield, MA), dated May 24, 1902.
- Original Specifications, prepared by Guy Kirkham Architect, undated.
- *Goodwin Memorial Library Feasibility Study*, prepared by Ford Gillen Architects, Inc., (Amherst, MA), revised and updated January 16, 2007.

- *Goodwin Memorial Library Second Floor Load,* prepared by Whetstone Engineering (Wendell, MA), dated January 18, 2012.

No other structural or subsurface soils information was available. No exploratory demolition or geotechnical investigations were conducted in conjunction with this study.

Structural Description:

Based on FBRA site observations and the above-referenced documents, Goodwin Memorial Library is a wood framed structure with a sloped roof, supported by perimeter (brick) masonry bearing walls and by interior wood beams and wrought iron pipe columns (6" O.D.; 8 total column locations).

The roof is a hipped form with a gabled dormer on the south side, centered on the main entrance. Roof construction consists of 2x10 sloped rafters spaced at 16" o.c., tied at the bottom with 2x10 ceiling joists at 16" o.c. (hung from the rafters at the 1/3 points of their span). Wood sheathing (7/8" boards) over the rafters serves as a diaphragm as well as a nailing surface for the original slate roof. Sill plates (3x8) at the bearing end of the rafters are anchored to the exterior masonry walls with 5/8" diameter bolts at 4'-0" o.c. (not confirmed at the site). Originally, there were eight (8) symmetrically located skylights; these have since been roofed over.

Second Floor construction (presently unoccupied/unassigned) consists of 2x12 joists spaced at 16" o.c., spanning 11'-8"+/- (east-west) and supported by two interior (north-south) lines of 8x12 wood girders. Girders span approximately 10 feet to round, wrought iron columns. The subfloor is 7/8" spruce boards, laid diagonally. Floor joists are anchored to the perimeter masonry walls (size and spacing of anchors unknown) and have 4" minimum bearing. Wrought iron I-beams support the roof, the Second Floor and the exterior wall over the main entry. It appears that the Second Floor was originally used as an open, assembly space; the total load capacity of this construction (dead load plus live load) is nearly 50% greater than that of the First Floor. The floor to ceiling height is approximately 12 feet.

First Floor construction is similar to Second Floor construction, consisting of 2x9 joists spaced at 16" o.c., spanning 11'-8"+/- and supported by two interior lines of 8x10 wood girders. Girders span approximately 10 feet to round, wrought iron columns. The subfloor is 7/8" spruce boards, laid diagonally. Floor joists are anchored to the perimeter masonry walls (size and

spacing of anchors unknown) and have 4" minimum bearing. The floor to ceiling height is approximately 10'-4".

Basement Floor construction is a concrete slab on grade; originally 2½" thick. The floor to ceiling height is approximately 7'-6".

Foundations are conventional spread footings. Foundation walls are stone construction below grade, changing to brick masonry construction above grade. It does not appear that perimeter foundation drains or underslab drainage was provided in the original construction. Exterior walls are solid brick masonry (12" thick; no cavity) with brick arches, stone lintels or cast iron lintels over openings.

There is no clearly defined lateral force resisting system in the building (the Library was constructed before modern building codes were introduced); the Library does not comply with current seismic code requirements. Lateral forces (wind and seismic) are resisted by unreinforced brick masonry walls.

Floor and roof construction does not appear to be fire protected (except to the extent afforded by the ceiling construction). The Library is not sprinklered.

<u>Structural Conditions/Issues – Comments and Recommendations</u>:

Structural conditions at the Goodwin Memorial Library were observed during a brief tour of the building on July 23, 2013. Where visible, floor and roof construction appeared to be consistent with the aforementioned, original drawings and specifications. Generally speaking, floor and roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members. Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements.

Structural/structurally related conditions observed during site visit are noted below:

- The condition of the exterior brick is generally satisfactory, particularly considering the age of the facility. Repointing was conducted following the issue of the Ford Gillen Architects report in 2007. Apparently, the quarter round brick cap near the base of the building had deteriorated and creating a water infiltration problem. This element has now been repointed (Left

Photo). Additional repointing is still required in some areas. The chimney (viewed from the ground) appears to be in relatively poor condition; further review is recommended (Right Photo).

- Perimeter foundation drainage was reportedly installed (per the 2007 Ford Gillen Architects report) to address water issues in the Basement and as an alternate to installing gutters and downspouts. Exterior grading should be reviewed and modified (as appropriate) to ensure that water shedding from the hipped roof is directed away from the building foundation walls at all locations. The use of a sloped, impervious layer below the surface would be beneficial in this regard.

- With Reference to the Whetstone Engineering report, FBRA concurs that the live load capacity of the Second Floor construction is at least 60 psf (governed by the capacity of the wood girders). Field grading of the wood framing would be required to make a more precise determination of available live load capacity. The current edition of the Massachusetts State Building Code (8th Edition) requires a minimum live load capacity of 100 psf in areas used for open public assembly (reduces to 60 psf if fixed seating is present). Wood girders would need to be reinforced if it is ultimately desired to use the Second Floor in this manner. The construction of the two stairways would also need to be evaluated and reinforced as necessary.

- The attachment of the plaster and lath ceiling of the Second Floor was reviewed in the area of the access hatch. The wood lath is nailed to the bottom of the ceiling joists; nails are permanently loaded in tension. In light of the age of the building and the shrinkage in the wood that may have occurred over time, FBRA recommends that ceiling attachments be inspected and supplemented, as necessary.

<u>Building Code Requirements and Additional Comments</u>:

<u>Massachusetts State Building Code Requirements – General Comments</u>:

Proposed renovations, alterations, repairs and additions to the Goodwin Memorial Library would be governed by the provisions of the Massachusetts State Building Code (MSBC – 780 CMR 8th Edition) and the Massachusetts Existing Building Code (MEBC). These documents are based on amended versions of the 2009 International Building Code (IBC) and the 2009 International Existing Building Code (IEBC), respectively.

The MEBC allows the Design Team to choose one of three (3) compliance methods. Structurally, the Prescriptive Compliance Method is preferred. Regardless of the compliance method chosen, the MEBC may require that the unreinforced masonry walls of the building be

evaluated with respect to the provisions of Appendix A1 of the IEBC (depending on the extent of the renovation/alteration work and/or proposed change(s) in use). In addition, Section 101.5.4.0 of the Massachusetts Amendments (Chapter 34) requires that the existing building be investigated in sufficient detail to ascertain the effects of the proposed work (or change in use) on the area under consideration, and the entire building or structure and its foundations, if impacted by the proposed work or change in use.

Additions – General Comments:

The design and construction of any proposed additions would be conducted in accordance with the Code for new construction. Significant additions should be structurally separated from the existing building by an expansion (seismic) joint to avoid an increase in gravity loads and/or lateral loads to existing structural elements. Smaller additions can be structurally attached to the existing building, provided they do not increase the demand - capacity ratio of the existing lateral force resisting elements in the building by more than 10%. Presently, no additions to the Library are proposed.

Renovations/Alterations – General Comments:

Where proposed alterations to existing structural elements carrying gravity loads results in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction. Proposed alterations to existing structural elements carrying lateral load (brick masonry walls in this case) which result in an increase in the demand - capacity ratio of over 10% should be avoided, if possible. Essentially, this means that removal of, or major alterations to the existing, unreinforced masonry walls in the building should be minimized. If this is not avoidable, more significant seismic upgrades/reinforcing will be required; potentially including the addition of lateral force resisting elements (braces, shear walls, etc.).

End of Structural Report

TOWN BUILDING ASSESSMENT STUDY
Town of Hadley, Massachusetts

Library

50 Middle Street

MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS

Prepared By:
Consulting Engineering Services
510 Chapman Street, Suite 201
Canton, MA 02021

July 29, 2013

GENERAL

The mechanical, electrical, plumbing, and fire protection systems were reviewed in conformance with the requirements of the following State and National codes and regulations, as applicable:

- Massachusetts State Building Code 8th Edition
- Massachusetts State Fire Prevention Regulations
- NFPA Latest Editions
- Massachusetts Plumbing Code
- Massachusetts Mechanical Code
- Massachusetts Electrical code (NEC 2011 Edition)
- Illuminating Engineering Society of North America (IESNA) Lighting Handbook
- ASHRAE 90.1 Latest Edition

The scope of this study does not include operational assessment of the fixtures and equipment reviewed; it includes only a brief visual review of the fixtures and equipment. Therefore notes regarding the condition of the fixtures and equipment may or may not be indicative of the actual condition of the systems and equipment and/or the expected life of the fixtures and equipment. Therefore it is recommended that services of a qualified technician be retained to evaluate the actual condition of fixtures and equipment prior to replacement.

MECHANICAL

HEATING

The building is heated by a single zone oil fired furnace located at the basement level. It is ducted to floor mounted supply registers and return grilles on the first and second floor, and ceiling height supply grilles at the basement level. The furnace appears to be in fair condition, and the sheet metal ductwork appears to be in good condition.

The oil tank is located in the basement, and it appears to be in fair to good condition.

AIR CONDITIONING

There are two ductless split air conditioning systems. Each system consists of a wall mounted air handling unit and a grade mounted condensing unit. These systems appear to be in good condition.

There is a portable dehumidifier in the basement, which indicates that the moisture levels in the basement are higher than ideal for library use.

VENTILATION

The only mechanical ventilation system in the building is the basement restroom exhaust system.

There are four ceiling/paddle fans serving the first floor.

CONTROLS

The automatic temperature controls consist of a wall mounted programmable thermostat located on the first floor controlling the furnace, and two hand held thermostats - one for each of the ductless split air conditioning systems.

RECOMMENDATIONS

Provide a new outside air ventilation system. The recommended ventilation system would generally consist of a heat recovery ventilator which would temper outside air prior to delivering it to the return air side of the furnace. If a new outside air ventilation system is provided, replace the programmable thermostat with one which has auxiliary contacts to operate the ventilation system whenever the building is operating in occupied mode.

Provide a split air conditioning system for the basement, similar to the split air conditioning systems serving the upper floors, to replace the portable dehumidifier.

ELECTRICAL

EXISTING SYSTEMS

The electrical service consists of an overhead, 240 volt single phase electrical service of 200 amps. The main panel is located in the basement in the south west corner of the building and the low voltage meter is located on the exterior wall above the meter. While the panel has adequate power for the building it is over loaded. The subpanel on the second floor should be upgraded to handle some of the circuits from the basement panel.

The lighting in the building is of very poor quality. Occupancy sensors control the large open spaces of the library, and occupancy sensors are not a good application for open spaces.

The wiring is a mix of romex, metal clad cable, and some knob and tube. The wiring system should be replaced in any future renovations.

This building has a centralized fire alarm system with a central station at the front door that appears to be in working order. The system should be tested and verified that it working properly. If the system needs upgrading it is recommended to match the system that is currently being used in the Public Safety Complex.

RECOMMENDATIONS

Replace the lighting with new fluorescent and LED fixtures.

Replace the occupancy sensors for lighting control with a centralized master lighting switch located at the front door.

Replace the subpanel on the second floor with a larger panel.

PLUMBING

EXISTING SYSTEMS

Water for the facility is from the municipal water system, and the water entrance is in the basement in one of the two restrooms. Hot water for the facility is provided by a small tank type electric water heater in the basement adjacent to the utility sink, and it appears to be in fair condition.

The two water closets in the basement are floor mount vitreous china tank type fixtures which are not accessible, are not low flow, and they appear to be in fair condition.

The two lavatories in the basement are wall mounted vitreous china fixtures. One of the fixtures is provided with an integral bubbler.

There are floor drains in both of the restrooms.

The utility sink appears to be in fair condition.

There is a sump pump in the basement, adjacent to the oil tank.

RECOMMENDATIONS

Replace the water closets and lavatories in the facility. Provide accessible fixtures where required. Water closets should be low flow, and lavatories should be provided with flow restrictors.

FIRE PROTECTION

The building does not have a sprinkler system.

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
basement		1,750 sf		182 lf	
level 1		1,750 sf		182 lf	
level 2		1,750 sf		182 lf	
Life Safety					
2 Elevator					$
stair/elevator addition					
see attached cost plan		1,539	sf	365.43	562,400
Sub Total - Direct Cost					562,400
General Conditions		14.00%			78,736
Overhead & Profit		16.00%			102,582
Design & Price Reserve		15.00%			111,558
Escalation	May-15	8.16%			69,791
Bond		2.40%			22,202
Soft Costs/Design Fees		30.00%			284,181
Total Project Cost					1,231,450
2 Exit From Lower Level					$
exit signs		3	ea	176.40	529
electrical wiring		3	ea	147.00	441
cutting & patching		1	ea	48.50	49
Sub Total - Direct Cost					1,019
General Conditions		20.00%			204
Overhead & Profit		23.00%			281
Design & Price Reserve		15.00%			226
Escalation	May-15	8.16%			141
Bond		3.00%			56
Soft Costs/Design Fees		30.00%			578
Total Project Cost					2,505
2 Redesign Rear of Basement					$
demolition		451	sf	9.80	4,420
disposal		1	ea	1,326.00	1,326
interior construction - shell space for stacks		451	sf	44.20	19,934
Sub Total - Direct Cost					25,680
General Conditions		20.00%			5,136
Overhead & Profit		23.00%			7,088
Design & Price Reserve		15.00%			5,686
Escalation	May-15	8.16%			3,557
Bond		3.00%			1,414
Soft Costs/Design Fees		30.00%			14,568
Total Project Cost					63,129

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778 GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
2	Exposed Rafters at Exit From Basement					$
	insulate roof		150	sf	4.24	636
	add roof vents		1	ea	318.30	318
	drywall ceiling		123	sf	3.14	386
	paint ceiling		123	sf	2.08	256
	Sub Total - Direct Cost					1,596
	General Conditions		20.00%			319
	Overhead & Profit		23.00%			440
	Design & Price Reserve		15.00%			353
	Escalation	May-15	8.16%			221
	Bond		3.00%			88
	Soft Costs/Design Fees		30.00%			905
	Total Project Cost					3,922
2	Drywall 2nd Floor Walls					$
	demo existing wallboard assembly		2,422	sf	1.01	2,446
	disposal		1	ea	733.80	734
	modify wainscott trim		173	lf	5.08	879
	drywall		2,422	sf	2.02	4,892
	paint walls		2,422	sf	1.00	2,422
	Sub Total - Direct Cost					11,373
	General Conditions		20.00%			2,275
	Overhead & Profit		23.00%			3,139
	Design & Price Reserve		15.00%			2,518
	Escalation	May-15	8.16%			1,575
	Bond		3.00%			626
	Soft Costs/Design Fees		30.00%			6,452
	Total Project Cost					27,958
2	Create 2nd Floor Landings					$
	demo doors		2	leaf	77.40	155
	disposal		1	ea	46.50	47
	new partition		14	lf	158.03	2,212
	hm door, frame, hardware, paint		2	leaf	1,899.43	3,799
	cut & patch finishes		14	lf	15.71	220
	paint walls		392	sf	1.00	392
	Sub Total - Direct Cost					6,825
	General Conditions		20.00%			1,365
	Overhead & Profit		23.00%			1,884
	Design & Price Reserve		15.00%			1,511
	Escalation	May-15	8.16%			945
	Bond		3.00%			376
	Soft Costs/Design Fees		30.00%			3,872
	Total Project Cost					16,778

	Description	Note	Quantity	Unit	Price	Total
	Health					
2	No work identified					
	Universal Accessibility					
3	Stair Nosings					$
	add filler piece to riser under nosings		114	lfr	21.24	2,421
	Sub Total - Direct Cost					2,421
	General Conditions		20.00%			484
	Overhead & Profit		23.00%			668
	Design & Price Reserve		15.00%			536
	Escalation	May-15	8.16%			335
	Bond		3.00%			133
	Soft Costs/Design Fees		30.00%			1,373
	Total Project Cost					5,950
3	Accessible Restrooms					$
	demo basement restrooms		109	sf	10.32	1,125
	disposal		1	ea	337.50	338
	new accessible restrooms		2	ea	26,000.00	52,000
	Sub Total - Direct Cost					53,463
	General Conditions		20.00%			10,693
	Overhead & Profit		23.00%			14,756
	Design & Price Reserve		15.00%			11,837
	Escalation	May-15	8.16%			7,405
	Bond		3.00%			2,945
	Soft Costs/Design Fees		30.00%			30,330
	Total Project Cost					131,429
3	Basemet Stair Add New Guardrail					$
	guardrail under stair		10	lf	177.63	1,776
	Sub Total - Direct Cost					1,776
	General Conditions		20.00%			355
	Overhead & Profit		23.00%			490
	Design & Price Reserve		15.00%			393
	Escalation	May-15	8.16%			246
	Bond		3.00%			98
	Soft Costs/Design Fees		30.00%			1,007
	Total Project Cost					4,365

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
3	2nd Floor Fire Escape Door					$
	demo exterior door and frame		1	leaf	123.84	124
	disposal		1	ea	37.20	37
	modify opening		1	ea	1,585.50	1,586
	insulated hm door, frame, hardware, paint		1	leaf	2,642.50	2,643
	cut and patch		1	ls	540.50	541
	Sub Total - Direct Cost					4,931
	General Conditions		20.00%			986
	Overhead & Profit		23.00%			1,361
	Design & Price Reserve		15.00%			1,092
	Escalation	May-15	8.16%			683
	Bond		3.00%			272
	Soft Costs/Design Fees		30.00%			2,798
	Total Project Cost					$12,123
3	Step Handrails					$
	demo guardrail		26	lf	5.16	134
	disposal		1	ea	40.20	40
	replace guardrail on stair		34	lf	177.63	6,039
	Sub Total - Direct Cost					6,213
	General Conditions		20.00%			1,243
	Overhead & Profit		23.00%			1,715
	Design & Price Reserve		15.00%			1,376
	Escalation	May-15	8.16%			861
	Bond		3.00%			342
	Soft Costs/Design Fees		30.00%			3,525
	Total Project Cost					15,275
3	Basement Stair Extensions On Handrails					$
	provide extensions on handrails		4	ea	248.95	996
	Sub Total - Direct Cost					996
	General Conditions		20.00%			199
	Overhead & Profit		23.00%			275
	Design & Price Reserve		15.00%			221
	Escalation	May-15	8.16%			138
	Bond		3.00%			55
	Soft Costs/Design Fees		30.00%			565
	Total Project Cost					2,449

	Description	Note	Quantity	Unit	Price	Total
3	Replace Knobset					$
	replace knobset with lever set		11	ea	861.46	9,476
	disposal		1	ea	125.00	125
	Sub Total - Direct Cost					9,601
	General Conditions		20.00%			1,920
	Overhead & Profit		23.00%			2,650
	Design & Price Reserve		15.00%			2,126
	Escalation	May-15	8.16%			1,330
	Bond		3.00%			529
	Soft Costs/Design Fees		30.00%			5,447
	Total Project Cost					23,603

Site

2	No work identified					

Exterior

3	Cracked South Entrance Steps					$
	cut out damaged materia1		1	ea	278.64	279
	disposal		1	ea	83.70	84
	repair with epoxy patch		1	ls	611.58	612
	painter		8	hrs	67.10	537
	materials		1	ls	130.89	131
	Sub Total - Direct Cost					1,643
	General Conditions		20.00%			329
	Overhead & Profit		23.00%			454
	Design & Price Reserve		15.00%			364
	Escalation	May-15	8.16%			228
	Bond		3.00%			91
	Soft Costs/Design Fees		30.00%			933
	Total Project Cost					$4,042
2	Replace West Entrance Steps					$
	demo existing steps		72	lfr	18.06	1,300
	disposal		1	ea	390.00	390
	new concrete steps		72	lfr	49.01	3,529
	Sub Total - Direct Cost					5,219
	General Conditions		20.00%			1,044
	Overhead & Profit		23.00%			1,440
	Design & Price Reserve		15.00%			1,155
	Escalation	May-15	8.16%			723
	Bond		3.00%			287
	Soft Costs/Design Fees		30.00%			2,960
	Total Project Cost					12,828

	Description	Note	Quantity	Unit	Price	Total
3	Ramp Handrail Minor Rusting					$
	painter		8	hrs	67.10	537
	materials		1	ls	130.89	131
	Sub Total - Direct Cost					668
	General Conditions		20.00%			134
	Overhead & Profit		23.00%			184
	Design & Price Reserve		15.00%			148
	Escalation	May-15	8.16%			93
	Bond		3.00%			37
	Soft Costs/Design Fees		30.00%			379
	Total Project Cost					$1,643

Interior

3	Basement Carpet					$
	remove carpet		1,750	sf	0.49	858
	disposal		1	ea	257.40	257
	new carpet tile		1,750	sf	5.52	9,660
	Sub Total - Direct Cost					10,775
	General Conditions		20.00%			2,155
	Overhead & Profit		23.00%			2,974
	Design & Price Reserve		15.00%			2,386
	Escalation	May-15	8.16%			1,492
	Bond		3.00%			593
	Soft Costs/Design Fees		30.00%			6,113
	Total Project Cost					26,488
4	Plaster Cracks					$
	remove damaged plaster		2,500	sf	3.10	7,750
	disposal		1	ea	2,325.00	2,325
	replaster		2,500	sf	11.12	27,800
	paint		2,500	sf	1.30	3,250
	Sub Total - Direct Cost					41,125
	General Conditions		20.00%			8,225
	Overhead & Profit		23.00%			11,351
	Design & Price Reserve		15.00%			9,105
	Escalation	May-15	8.16%			5,696
	Bond		3.00%			2,265
	Soft Costs/Design Fees		30.00%			23,330
	Total Project Cost					101,097

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
4	Replace Spalled Bricks					$
	remove damaged brick		20	ea	30.29	606
	disposal		1	ea	181.80	182
	install new brick		20	ea	22.86	457
	Sub Total - Direct Cost					1,245
	General Conditions		20.00%			249
	Overhead & Profit		23.00%			344
	Design & Price Reserve		15.00%			276
	Escalation	May-15	8.16%			173
	Bond		3.00%			69
	Soft Costs/Design Fees		30.00%			707
	Total Project Cost					3,063
4	Repoint Brick Hearth					$
	repoint hearth		14	sf	34.29	480
	Sub Total - Direct Cost					480
	General Conditions		20.00%			96
	Overhead & Profit		23.00%			132
	Design & Price Reserve		15.00%			106
	Escalation	May-15	8.16%			66
	Bond		3.00%			26
	Soft Costs/Design Fees		30.00%			272
	Total Project Cost					1,178
3	Loose Trim					$
	re-secure loose trim boards		2	ea	80.11	160
	Sub Total - Direct Cost					160
	General Conditions		20.00%			32
	Overhead & Profit		23.00%			44
	Design & Price Reserve		15.00%			35
	Escalation	May-15	8.16%			22
	Bond		3.00%			9
	Soft Costs/Design Fees		30.00%			91
	Total Project Cost					393

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
3	Broken Windows					$
	hack out and replace lites		3	ea	82.45	247
	Sub Total - Direct Cost					247
	General Conditions		20.00%			49
	Overhead & Profit		23.00%			68
	Design & Price Reserve		15.00%			55
	Escalation	May-15	8.16%			34
	Bond		3.00%			14
	Soft Costs/Design Fees		30.00%			140
	Total Project Cost					607
4	Painting					$
	paint/stain all interior surfaces		5,250	sf	2.08	10,920
	Sub Total - Direct Cost					10,920
	General Conditions		20.00%			2,184
	Overhead & Profit		23.00%			3,014
	Design & Price Reserve		15.00%			2,418
	Escalation	May-15	8.16%			1,513
	Bond		3.00%			601
	Soft Costs/Design Fees		30.00%			6,195
	Total Project Cost					26,845

Energy & Water Conservation

3	Windows					$
	add interior storm panels	double hung	22	ea	343.53	7,558
	add interior storm panels	basement	10	ea	171.76	1,718
	Sub Total - Direct Cost					9,276
	General Conditions		20.00%			1,855
	Overhead & Profit		23.00%			2,560
	Design & Price Reserve		15.00%			2,054
	Escalation	May-15	8.16%			1,285
	Bond		3.00%			511
	Soft Costs/Design Fees		30.00%			5,262
	Total Project Cost					22,803

Hazardous Materials

1	No work identified	

	Description	Note	Quantity	Unit	Price	Total
	Mechanical					
3	Outside Air Ventilation					$
	outside air ventilation system with heat recovery		1	ea	35,455.00	35,455
	electrical feeders & wiring		1	ea	1,764.00	1,764
	cutting & patching		1	ea	930.48	930
	Sub Total - Direct Cost					38,149
	General Conditions		20.00%			7,630
	Overhead & Profit		23.00%			10,529
	Design & Price Reserve		15.00%			8,446
	Escalation	May-15	8.16%			5,284
	Bond		3.00%			2,101
	Soft Costs/Design Fees		30.00%			21,642
	Total Project Cost					93,781
3	Split AC System at Basement					$
	split AC System		1,750	sf	16.97	29,698
	electrical feeders & wiring		1,750	sf	1.34	2,345
	cutting & patching		1	ea	801.08	801
	Sub Total - Direct Cost					32,844
	General Conditions		20.00%			6,569
	Overhead & Profit		23.00%			9,065
	Design & Price Reserve		15.00%			7,272
	Escalation	May-15	8.16%			4,549
	Bond		3.00%			1,809
	Soft Costs/Design Fees		30.00%			18,632
	Total Project Cost					80,740
	Electrical					
4	Lighting					$
	demo existing lighting		5,250	sf	0.52	2,730
	disposal		1	ea	819.00	819
	replace lighting		5,250	sf	9.80	51,450
	Sub Total - Direct Cost					54,999
	General Conditions		20.00%			11,000
	Overhead & Profit		23.00%			15,180
	Design & Price Reserve		15.00%			12,177
	Escalation	May-15	8.16%			7,618
	Bond		2.40%			2,423
	Soft Costs/Design Fees		30.00%			31,019
	Total Project Cost					134,416

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
4	Lighting Control					$
	demo existing occupancy sensors		10	ea	25.80	258
	disposal		1	ea	77.40	77
	centralized master control switch & rewiring		1	ea	2,940.00	2,940
	Sub Total - Direct Cost					3,275
	General Conditions		20.00%			655
	Overhead & Profit		23.00%			904
	Design & Price Reserve		15.00%			725
	Escalation	May-15	8.16%			454
	Bond		3.00%			180
	Soft Costs/Design Fees		30.00%			1,858
	Total Project Cost					8,051
3	Upgrade Sub Panel					$
	demo panelboard		1	ea	278.64	279
	disposal		1	ea	83.70	84
	new panelboard		1	ea	2,744.00	2,744
	Sub Total - Direct Cost					3,107
	General Conditions		20.00%			621
	Overhead & Profit		23.00%			857
	Design & Price Reserve		15.00%			688
	Escalation	May-15	8.16%			430
	Bond		3.00%			171
	Soft Costs/Design Fees		30.00%			1,762
	Total Project Cost					7,636
	Plumbing					
2	Plumbing Fixtures					$
	demo plumbing fixtures		4	ea	77.40	310
	disposal		1	ea	93.00	93
	new plumbing fixtures and trim		4	ea	2,026.00	8,104
	Sub Total - Direct Cost					8,507
	General Conditions		20.00%			1,701
	Overhead & Profit		23.00%			2,348
	Design & Price Reserve		15.00%			1,883
	Escalation	May-15	8.16%			1,178
	Bond		3.00%			469
	Soft Costs/Design Fees		30.00%			4,826
	Total Project Cost					20,912

TOWN OF HADLEY FACILITIES AUDIT
GOODWIN MEMORIAL LIBRARY
HADLEY, MA 01778

GFA 5,250

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
	Fire Protection					
3	Sprinkler System					$
	new water service & backflow preventer		1	ea	15,195.00	15,195
	sprinkler system		5,250	sf	5.07	26,618
	cutting & patching		1	ea	1,330.90	1,331
	Sub Total - Direct Cost					43,144
	General Conditions		20.00%			8,629
	Overhead & Profit		23.00%			11,908
	Design & Price Reserve		15.00%			9,552
	Escalation	May-15	8.16%			5,976
	Bond		3.00%			2,376
	Soft Costs/Design Fees		30.00%			24,476
	Total Project Cost					106,061

COSTPRO INC.
CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
GOODWIN MEMORIAL LIBRARY STAIR/ELEVATOR ADDITION
TOWN OF HADLEY, MA

Project Cost Plan (Uniformat II Level 3)

COSTPRO, INC.

Project: New Addition Component	GFA(SF):	1,539	Date:	Aug-13		Sheet No: 1 OF 2		
Uniformat Element (Levels 2&3)	Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
A SUBSTRUCTURE		24,475		15.90	4.4%			
A10 Foundations	12,507		8.13			513	SF	24.38
A20 Basement Construction	11,968		7.78			513	SF	23.33
B SHELL		221,198		143.73	39.3%			
B10 Superstructure	37,028		24.06			1,539	SF	24.06
B20 Exterior Closure	176,475		114.67			2,715	SF	65.00
B30 Roofing	7,695		5.00			513	SF	15.00
C INTERIORS		93,320		60.64	16.6%			
C10 Interior Construction	19,838		12.89			1,539	SF	12.89
C20 Stairs	60,000		38.99			2	FLT	30000.00
C30 Interior Finishes	13,482		8.76			1,539	SF	8.76
D SERVICES		191,780		124.61	34.1%			
D10 Conveying Systems	97,500		63.35			3	STOP	32500.00
D20 Plumbing	23,085		15.00			1,539	SF	15.00
D30 HVAC	35,536		23.09			1,539	SF	23.09
D40 Fire Protection	8,465		5.50			1,539	SF	5.50
D50 Electrical Systems	27,194		17.67			1,539	SF	17.67
E EQUIPMENT & FURNISHINGS		0		0.00	0.0%			
E10 Equipment	0		0.00			0	SF	2.00
E20 Furnishings	0		0.00			0	SF	1.50

COSTPRO INC.

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component				Date: Aug-13			Sheet No: 2 OF 2		
Uniformat Element (Levels 2&3)		Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
F	SPECIAL CONSTRUCTION & DEMOLITION		4,540		2.95	0.8%			
	F10 Special Construction	0		0.00			0	SF	0.00
	F20 Selective Demolition	4,540		2.95			1,539	SF	2.95
G	BUILDING SITEWORK		27,087		17.60	4.8%			
	G10 Site Preparation	0		0.00			1,539	SF	0.00
	G20 Site Improvements	17,083		11.10			1,539	SF	11.10
	G30 Site Civil/Mechanical Utilities	7,695		5.00			1,539	SF	5.00
	G40 Site Electrical Utilities	2,309		1.50			1,539	SF	1.50
	G90 Other Site Construction	0		0.00			1,539	SF	0.00
	SUBTOTAL		562,400		365.43	100.0%			
Z10	GENERAL REQUIREMENTS	0.0%	0		0.00				
Z20	CONTINGENCIES	0.0%	0		0.00				
Z30	CM AT RISK PREMIUM	0.0%	0		0.00				
Z90	PROJECT COST ESTIMATE	$	562,400	$	365.43				

LIBRARY FUNCTIONS

	Existing Area		Proposed
Basement			
Restroom 1	50		53
Restroom 2	50		
Booksale	212		440
Oil Tank Room	104		104
Furnace Room	76		76
Storage 1	69		69
Storage 2	20		20
Stacks	996		996
Exit Stair	114		114
Stair			215
Elevator			58
Storage			91
Unassigned	59		120
Total (within exterior walls)	1750		2356
First Floor			
Stacks 1	852		1588
Stacks 2	397		
Reference	113		
Computers	100		
Stair/Storage	44		44
Stair/Storage	44		44
Vestibule	50		50
Stair			215
Elevator			58
Custodian			91
Restroom			53
Unassigned	150		99
Total	1750		2242
Second Floor			
Museum	1634		
Stair			59
Stair			59
Adult Sitting			344
Study			110
Director			200
Program			460
Study			110
Kitchen			72
Storage			64
Restroom			53
Elevator			58
EMR			91
Stair			215
Corridor			182
Unassigned	116		165
Total	1750		2242
TOTAL ALL FLOORS	**5250**		**6840**