



A Bureau Veritas Group Company

FACILITY CONDITION ASSESSMENT

Town of Atkinson
21 Academy Avenue
Atkinson, New Hampshire 03811
David Cressman



LIBRARY

5 Academy Avenue
Atkinson, New Hampshire 03813

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EMG PROJECT #:

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engineering | environmental | capital planning | project management

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	Library
Main Address	5 Academy Avenue, Atkinson, New Hampshire 03813
Site Developed	2008
Site Area	2.39 acres (estimated)
Parking Spaces	37 total spaces all in open lots; 2 of which are accessible
Building Area	11,600 SF
Number of Stories	1 Floor
Current Occupants	Library
Percent Utilization	100%
Date(s) of Visit	January 16, 2020
Management Point of Contact	Bill Innes and Dave Weymouth 603.362.4750 phone Bill.innes@myfairpoint.net email
On-site Point of Contact (POC)	same as above
Assessment and Report Prepared By	Chris Ledbetter
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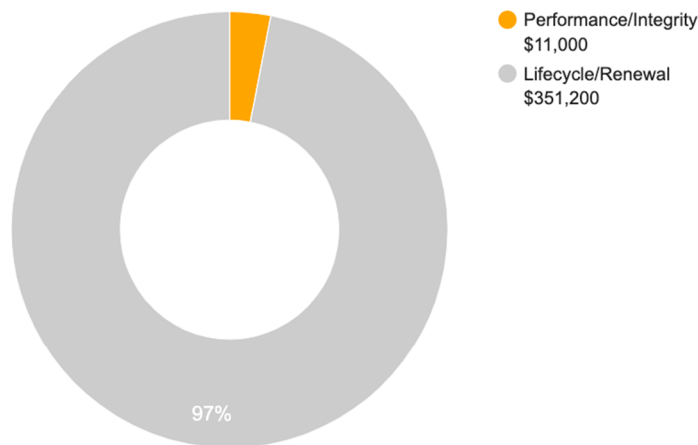
Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance.

Plan Type Descriptions

Safety	■	An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	■	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	■	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	■	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	■	Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	■	Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: \$362,200

Significant/Systemic Findings and Deficiencies

Historical Summary

Information provided by the point of contact (POC) advised that the building (Library) was originally built in 2008. Since the original construction date, the roof was partially upgraded and there were a couple HVAC upgrades from 2012-2015. The rear roof was reconstructed in 2011. In 2014, the heat compressor and mini split located in IT room was both replaced.

Architectural

As the building is twelve years old, few components in the building have required replacement. Good maintenance practices have kept the buildings in good condition, but some components are beginning to show wear and are approaching the end of their expected lifespan. The fiber cement siding is loose due to incorrect installation, recommend immediate repairment. No drainage system on roof. This is causing deteriorating siding due to infiltration, gutter/downspout installation is recommended. Roof nails are not attached to attic truss. This was observed from attic, recommend a structural study to further analysis building structure stainability. An upgraded insulation is recommended for attic. The existing caulking for all windows should be considered for replacement as the expected lifespan has been reached. No other significant problems were observed. The rear roof of the building was replaced in 2011. The interior finishes are original to construction, typical lifecycle-based interior and exterior finish replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The electrical room does not have any cooling supply, installing a mini split is recommended. The building has (2) Air Handling Units, (2) Boilers, (2) Air cooled condensing units/heat pumps, (1) diesel generator, (1) mini split serving the IT room, and an individual unit heater serving the electrical room. All existing HVAC and Plumbing components appear adequately maintained. All distribution pumps should be considered for replacement in the next (3) years due to reaching its remaining useful life (RUL). The generator, heat compressor and mini split was reported to be all recently replaced from 2012-2015. The fire extinguishers, strobes, pull stations appear original to construction and should be replaced for reliability. Plumbing is comprised of copper and PVC with no apparent issues.

Site

The asphalt pavement has faded seal and stripe, replacement is recommended as it has reached its expected life span. The asphalt pavement also has a crack due to deterioration; cutting a patching the asphalt is recommended.

Recommended Additional Studies

The structure is in poor condition due to incorrect installation. The roof truss is not attached to supporting nails and exterior siding needs fastening. A professional structural engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables.

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Description

0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCI's are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCI's ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

FCI Analysis | Library (2008)

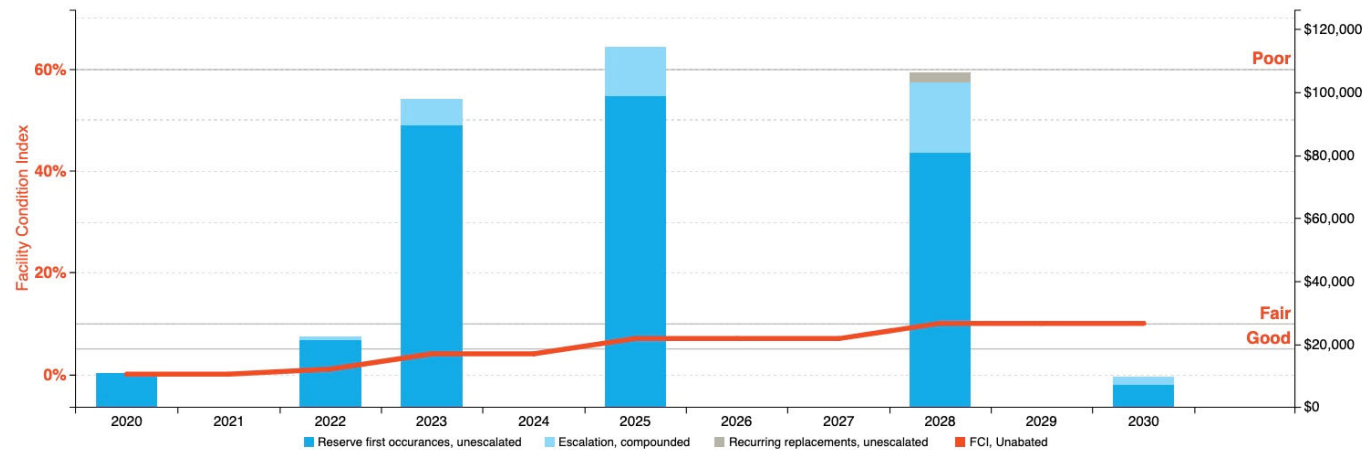
<i>Replacement Value</i> \$ 3,619,200	<i>Total SF</i> 11,600	<i>Cost/SF</i> \$ 312	
Current FCI		\$ 11,000	0.3 %
3-Year		\$ 133,500	3.7 %
5-Year		\$ 252,800	7.0 %
10-Year		\$ 377,800	10.4 %

The orange line in the graph below forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures. The capital expenditures allocated for each year (blue bars) are associated with the dollar amounts along the right Y axis.

Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Library

Replacement Value: \$ 3,619,200; Inflation rate: 3.0%



Immediate Needs

Facility/Building	Total Items	Total Cost
Total	0	\$0

Key Findings



Exterior Wall in Poor condition.

Wood Clapboard Siding, 1-2 Stories
Library Building exterior

Uniformat Code: B2011
Recommendation: **Repair in 2020**

Priority Score: **90.0**

Plan Type:
Performance/Integrity

Cost Estimate: \$100

\$\$\$\$

Deteriorating siding from water infiltration, roof don and apos;t have drainage system. - AssetCALC ID: 1700117



Roof in Poor condition.

any type per man-day
Library Attic

Uniformat Code: B3011
Recommendation: **Repair in 2020**

Priority Score: **90.0**

Plan Type:
Performance/Integrity

Cost Estimate: \$9,900

\$\$\$\$

Anchors not attached to truss in attic - AssetCALC ID: 1700171



Parking Lots in Poor condition.

Library Site

Uniformat Code: G2022
Recommendation: **Cut and Patch in 2020**

Priority Score: **87.0**

Plan Type:
Performance/Integrity

Cost Estimate: \$1,000

\$\$\$\$

Cracked Asphalt- seal and amp; coil is recommended - AssetCALC ID: 1700767

2. Building and Site Information



Systems Summary

System	Description	Condition
Structure	Conventional wood frame structure on concrete slab	Fair
Façade	Cement board siding with vinyl windows	Fair
Roof	Primary: Gable construction with asphalt shingles	Fair
Interiors	Walls: Painted gypsum board Floors: Carpet, VCT, and ceramic tile Ceilings: Painted gypsum board	Fair
Elevators	None	Fair
Plumbing	Copper supply and PVC waste and venting Gas domestic boilers with storage tanks Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Central system with boilers, air handlers, and cooling feeding Individual package Supplemental components: ductless split-systems / suspended propane unit heater	Fair

Systems Summary		
Fire Suppression	Wet-pipe sprinkler system; hydrants, fire extinguishers	Fair
Electrical	Source and Distribution: Main panel with copper wiring Interior Lighting: T-8, LED, CFL Emergency: Diesel generator	Fair
Fire Alarm	Alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt lots with brick sidewalk and concrete stairs	Fair
Site Development	Property entrance signage, CMU dumpster enclosures Limited park benches, picnic tables	Fair
Landscaping and Topography	Limited landscaping features Irrigation not present Brick retaining wall Low to moderate site slopes throughout	Fair
Utilities	Municipal water and sewer Local utility-provided electric with local propane tanks	Fair
Site Lighting	Pole-mounted: LED, incandescent Building-mounted: CFL	Fair
Ancillary Structures	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property.	
Key Issues and Findings	Loose siding, roof sheathing not correctly nailed to trusses in attic, cracked asphalt pavement,	

Systems Expenditure Forecast

System	Immediate	Short Term (3 yr)	Near Term (5 yr)	Med Term (10 yr)	Long Term (20 yr)	TOTAL
Structure	-	-	-	-	-	-
Facade	\$100	-	-	-	\$88,600	\$88,700
Roofing	\$9,900	-	\$500	\$55,800	\$1,100	\$67,300
Interiors	-	\$1,600	\$110,600	-	\$151,200	\$263,400
Plumbing	-	\$14,800	-	-	\$48,900	\$63,600
Fire Suppression	-	-	\$200	-	\$200	\$400
HVAC	-	\$82,800	-	\$10,200	\$512,700	\$605,700
Electrical	-	-	\$1,700	\$22,700	\$170,700	\$195,100
Fire Alarm & Comm	-	\$16,400	-	-	\$25,500	\$41,900
Equipment/Special	-	\$1,300	\$1,700	-	\$4,300	\$7,300
Site Lighting	-	-	-	\$10,600	\$8,900	\$19,600
Pavement	\$1,000	\$3,500	-	\$4,100	\$91,700	\$100,300
Site Development	-	-	-	\$12,700	\$1,200	\$13,800
TOTALS	\$11,000	\$120,400	\$114,700	\$116,100	\$1,105,000	\$1,467,100

3. Property Space Use and Observed Areas

Unit Allocation

All 11,600 square feet of the property are occupied by the Town of Atkinson.

Areas Observed

The interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roofs from ground level.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

4. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “public facilities” on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

During the FCA, EMG performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to those areas and categories set forth in the tables throughout this report. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed, and actual measurements were not taken to verify compliance.

The facility was originally constructed in 2008. The facility was not subsequently renovated. Complaints about accessibility issues have not been received by the property management. The property does not have associated pending litigation related to existing barriers or previously removed barriers.

An accessibility study has not been performed at the site. Although no significant issues were identified, a comprehensive ADA Compliance Survey may reveal specific aspects of the property that are not in full compliance.

Accessibility Issues

	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor/No Issues
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exterior Path of Travel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Interior Path of Travel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Use Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kitchens/Kitchenettes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The table below is intended to be used as a general reference guide to help differentiate the orders of magnitude between some of the more commonly observed accessibility issues. The table is not intended to be all-inclusive, and boxes checked in the tables above do not necessarily mean those specific problems or shortcomings cited as examples below exist at the subject buildings and sites. Reference the photolog (in the appendix) and/or *Key Findings* section for visuals and/or more specifics about the subject site conditions.

Reference Guide

	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor/No Issues
Parking	<ul style="list-style-type: none"> - Needs full reconstruction - Excessive slopes over 3% require major re-grading - No level locations to add required spaces 	<ul style="list-style-type: none"> - No or non-compliant curb cuts - Moderate difficulty to add required accessible spaces - Slopes close to compliant 	<ul style="list-style-type: none"> - Painting of markings needed - Signage height non-compliant - Signage missing
Exterior Path of Travel	<ul style="list-style-type: none"> - Large areas of sidewalks with excessive slopes - No ramp when needed - Ramps with excessive slopes 	<ul style="list-style-type: none"> - Ramps need rails - Ramps need rail extensions - Need significant # of lever handles - All or most entrance door exterior maneuvering clearance areas with excessive slopes 	<ul style="list-style-type: none"> - One entrance door exterior maneuvering clearance area with excessive slope - A few door knobs instead of lever handles - Non-compliant signage
Interior Path of Travel	<ul style="list-style-type: none"> - All or most interior doors appear less than 32" wide - Corridors less than 36" wide - No ramp when needed - Ramps with excessive slopes - Non-compliant treads/risers at means of egress stairways 	<ul style="list-style-type: none"> - Single height drinking fountains - Drinking fountain too high or protrudes into accessible route - Ramps need rails - Ramps need rail extensions - Need significant # of lever handles - Non-compliant rail extensions at egress stairways - All/most door thresholds high 	<ul style="list-style-type: none"> - One door threshold too high - A few door knobs instead of lever handles - Non-compliant door pressures - Non-compliant signage - Switches not within reach range
Public Use Restrooms	<ul style="list-style-type: none"> - No ADA RR on each accessible floor - Restroom(s) too small - Entire restroom(s) requires renovation - Water closet clearance requires moving walls 	<ul style="list-style-type: none"> - Interior doors appear less than 32" wide - Missing or non-compliant grab bars - Easily fixable clearance issues 	<ul style="list-style-type: none"> - Minor height adjustments required - Non-compliant door pressures - Missing a visual strobe (only required if audible fire alarm already present) - Missing lavatory pipe wraps - Signage not compliant
Elevators	<ul style="list-style-type: none"> - No elevator present when required - Elevator cab too small 	<ul style="list-style-type: none"> - Panel control buttons not at compliant height - No hands-free emergency communication system - Elevator only has mechanical stops 	<ul style="list-style-type: none"> - Audible/visual signals at every floor may be lacking - Minor signage / Braille issues
Kitchens/Kitchenettes	<ul style="list-style-type: none"> - Clear space for each appliance not present - Clearance between opposing counters too narrow 	<ul style="list-style-type: none"> - Sink and counter too high - Sink knee and toe clearance not provided where required (built-in) - Less than 50% of cabinetry within reach range 	<ul style="list-style-type: none"> - Dispensers not within reach range - Switches not within reach range - Missing sink pipe wraps if knee and toe clearance required

5. Purpose and Scope

Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

6. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means*, *CBRE Whitestone*, and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of EMG's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

7. Certification

The Town of Atkinson (the Client) retained EMG to perform this Facility Condition Assessment in connection with its continued operation of the Library, located at 5 Academy Avenue, Atkinson, New Hampshire 03813, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to EMG.

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Reviewed by:



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8. Appendices

Appendix A: Photographic Record

Appendix B: Site Plan

Appendix C: Pre-Survey Questionnaire

Appendix D: Component Condition Report

Appendix E: Replacement Reserves

Appendix A: Photographic Record



#1

OVERVIEW



#2

FRONT ELEVATION



#3

LEFT ELEVATION



#4

RIGHT ELEVATION



#5

REAR ELEVATION



#6

ELEVATION



#7

SIDING-ISSUE



#8

SIDING-ISSUE



#9

ROOF/TRUSS- ISSUE



#10

PRIMARY ROOF- ASPHALT
SHINGLES

#11

PEDESTRIAN PAVEMENT,
SIDEWALK, CLAY BRICK

#12

PEDESTRIAN PAVEMENT,
SIDEWALK, ASPHALT



#13

EXTERIOR STAIRS, CONCRETE



#14

PARKING LOTS, PRECAST
CONCRETE BOLLARD

#15

PARKING LOTS, BOLLARD



#16

SITE FURNISHING, BIKE RACK,
REPLACE

#17

SITE FURNISHINGS, PARK
BENCH, WOOD

#18

SIGNAGE, PROPERTY,
MONUMENT



#19

DUMPSTERS



#20

WINDOWS



#21

SOFFIT



#22

SITE HVAC



#23

DUCTLESS SPLIT SYSTEM



#24

CONDENSING UNIT/HEAT
PUMP



#25

CONDENSING UNIT/HEAT
PUMP, SPLIT SYSTEM

#26

GENERATOR, DIESEL



#27

FIRE ALARM CONTROL PANEL



#28

AIR HANDLER (AHU-1),
INTERIOR

#29

AIR HANDLER (AHU-2),
INTERIOR

#30

BOILER #1, GAS



#31	BOILER #2, GAS
-----	----------------



#32	UNIT HEATER
-----	-------------



#33	EXPANSION TANK
-----	----------------



#34	DOMESTIC CIRCULATION PUMP
-----	---------------------------



#35	KITCHEN, REFRIGERATOR
-----	-----------------------



#36	KITCHEN COUNTER
-----	-----------------



#37

SINK



#38

TOILET



#39

INTERIOR WALL FINISH



#40

INTERIOR CARPET



#41

CERAMIC TILE



#42

FLUORESCENT LIGHTING



#43

FLUORESCENT LIGHTING



#44

FLUORESCENT LIGHTING



#45

LED DOWNLIGHTS



#46

LIGHTING FIXTURE



#47

SITE POLE LIGHT

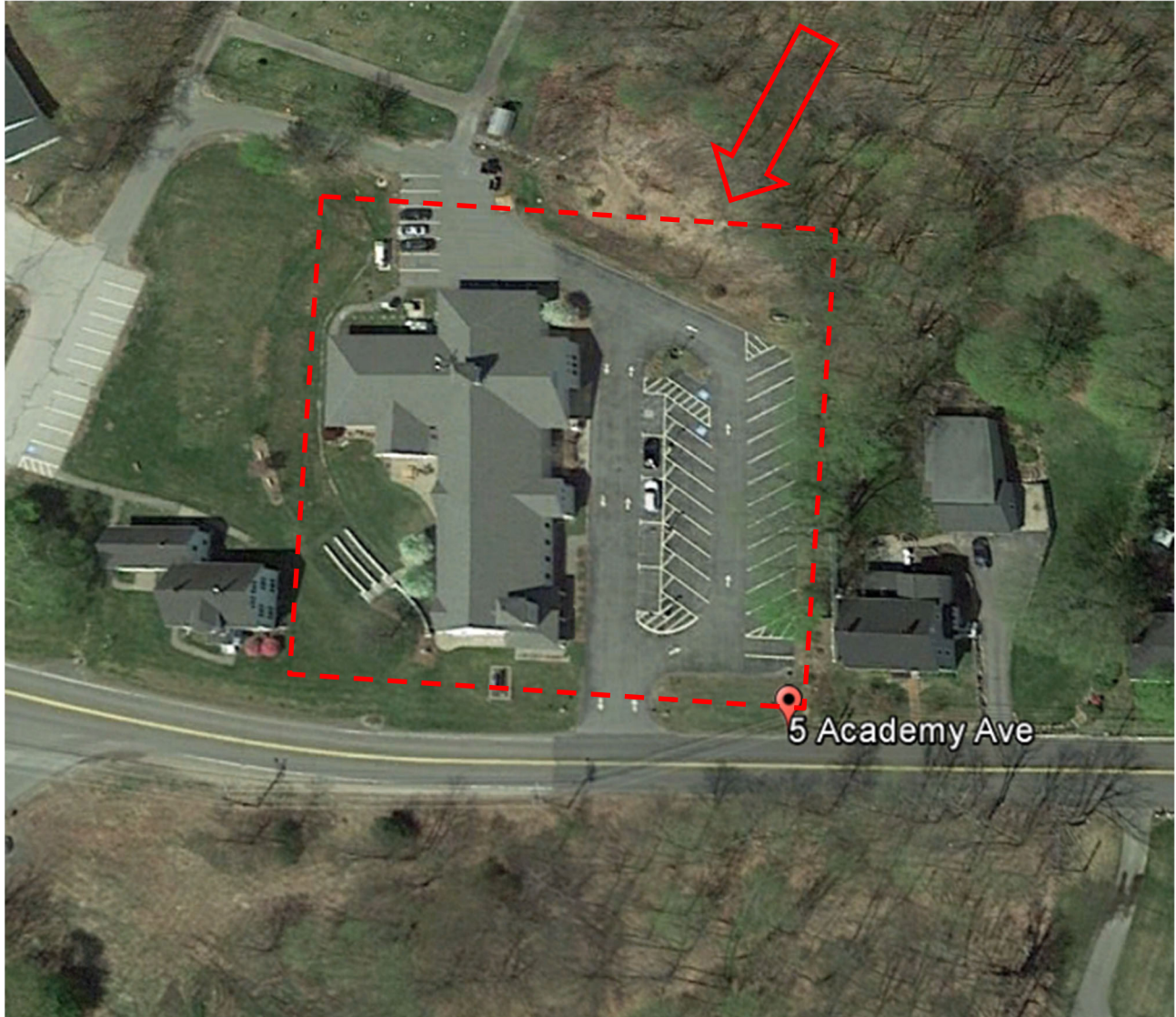


#48

ALUMINUM POLE LIGHT

Appendix B: Site Plan

Site Plan



Project Name:

Library

Project Number:

141924.19R000-003.017

Source:

Google Earth

On-Site Date:

January 16, 2020

Appendix C: Pre-Survey Questionnaire

Town of Atkinson

Pre-Survey Questionnaire



**BUREAU
VERITAS**

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of Institution:	Town of Atkinson, New Hampshire		
Name of Building: Library	Building #: 141924-19R000-003.017		
Name of person completing questionnaire: Bill Innes and Dave Weymouth			
Length of Association with the Property: 14 years		Phone Number: 603-362-4750	

Site Information					
Year of Construction?	2008				
No. of Stories?	1 Floor.				
Total Site Area?	2.39 Acres				
Total Building Area?	11,600 Sqft				
Parking	Open Parking	Enclosed Parking	Partly Enclosed Parking	Is parking Heated?	
Parking Area?	7,160 Sqft	Sqft	Sqft	Yes /No	
Area Heated (%)	100%				
Area Cooled (%)	100% Cooling Equipment Redundancy? N // N+1 // N+2 // >2N				
Total Conditioned Area (%)	100%				
Primary Heating System?	Propane				
Secondary Heating System?	None				
If Oil Used For Heating- Tank Capacity	Gallons		No. of Tanks		
Primary Cooling System & Capacity?	Electric				
Do Any HVAC Systems Use R-11, R-12 or R-22 Refrigerants?	Yes				
	Elec.	Natural Gas	Propane	No.2 Oil	Dist. Steam
Primary Heating Fuel?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Heating Fuel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Domestic Water Heater Fuel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Building Occupancy/Schedule		
Facility Occupancy (avg. people ea. day)	Varies - 100+ people per day	
After Hours Facility Occupancy (avg. people /day)	Varies – 1 person 1 day per week	
Standard Staff Work Timing	10:00 AM – 8:00 PM	
Maintenance Staff Hours	None	
Number of Computers at Site	22 + 10 chrombooks	
Day	Hours open to Public	Hours open to Staff
Monday	10:00 AM - 8:00 PM	10:00 AM - 8:00 PM
Tuesday	10:00 AM - 8:00 PM	10:00 AM - 8:00 PM
Wednesday	10:00 AM - 8:00 PM	10:00 AM - 8:00 PM
Thursday	10:00 AM - 8:00 PM	10:00 AM - 8:00 PM
Friday	10:00 AM - 8:00 PM	10:00 AM - 8:00 PM
Saturday	10:00 AM - 3:00 PM	10:00 AM - 3:00 PM

Town of Atkinson

Pre-Survey Questionnaire



Sunday	<u>Closed</u>	<u>Closed</u>
Number of Months the Facility Operates in a Year?	12 Months	
Estimated Percentage of Male Staff and Guests		

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	None	
2. HVAC Mechanical, Electric, Plumbing?	February 2019	
3. Life-Safety/Fire?	April 2019	
4. Roofs?	Don't Inspect	

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	None
Planned Capital Expenditure For Next Year?	None
Age of the Roof?	11 years
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	None

Unk = Unknown, NA = Not Applicable	Yes	No	NA	Unk	Comments
1. Are the plumbing fixtures Low Flow (<i>Below 2.0GPM, .6GPF</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	
2. Are there any vacant buildings or significant building areas?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	
3. Do tenants pay for utilities at leased properties?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does the owner pay for exterior site lighting electricity?	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Any Issues with exterior Lighting?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	

Building Structure							
		Y/N		Y/N		Y/N	Additional Comments?
Roof Type:	Pitched?	Y	Flat		Both		
Attic Insulation:	Batt		Cellulose		Fiberglass		Unknown
Window Frame:	Wooden	Y	Vinyl		Metal		
Window Glazing:	Single		Double	Y	Triple		
Structure	Wooden	Y	Metal		Conc.		

Building Lighting			
Type of Linear Fluorescent Lamps? (<i>T8/T12</i>)	LED	Exterior Lighting Control (<i>Timer/Photocell</i>)	
Type of Common Lamps? (<i>Incan/CFLs</i>)	LED	Exterior Light Timing	Dawn to Dusk
Lighting Sensors? (<i>Y/N</i>)		EXIT Lights (<i>Incan/Fluor/LED</i>)	LED

Other Systems				
Item	Qty		Selection	Utility Company / Provider Name
# of Elevators	0	Hydraulic/Traction		N/A
# of Electric Meters	1	Master/ Direct		
# of Nat. Gas Meters	0	Resi/Commercial/Indust.		

Town of Atkinson

Pre-Survey Questionnaire



**BUREAU
VERITAS**

# of Water Meters	1			
# of Backup Generator	1	Fuel: Propane		

Preventive Maintenance of Mechanical System		
Systems	Annual Professional Maintenance	Seldom or Never Maintained
Tenant Space Heating Systems (<i>Furnace/Boilers/Heat pumps</i>)	X	<input type="checkbox"/>
Tenant Space Cooling Systems (<i>Split /Window AC</i>)	X	<input type="checkbox"/>
Domestic Water Heaters	<input type="checkbox"/>	X

Building Appliances		
	Value	Additional Comments?
Percentage of Energy Star Certified Refrigerators	%	Unknown
Percentage of Refrigerators older than 8 years	%	2 - Unknown
Cooking Range Type (Electric/Gas/Propane)		
Laundry System (Leased/Owned)	None	
No. of Washers	None	
No. of Dryers	None	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")					
QUESTION	Y	N	Unk	NA	COMMENTS
ZONING, BUILDING DESIGN & LIFE SAFETY ISSUES					
1 Are there any unresolved building, fire, or zoning code issues?	X				Siding
2 Is there any pending litigation concerning the property?		X			
3 Are there any other significant issues/hazards with the property?		X			
4 Are there any unresolved construction defects at the property?	X				Siding
5 Has any part of the property ever contained visible suspect mold growth?		X			
6 Is there a mold Operations and Maintenance Plan?		X			
7 Are there any recalled fire sprinkler heads (Star, GEM, Central, and Omega)?		X			
8 Have there been indoor air quality or mold related complaints from tenants?		X			

Town of Atkinson

Pre-Survey Questionnaire



GENERAL SITE						
9	Are there any problems with erosion, storm water drainage or areas of paving that do not drain?		X			
10	Are there any problems with the landscape irrigation systems?		X			
BUILDING STRUCTURE						
11	Are there any problems with foundations or structures?		X			
12	Is there any water infiltration in basements or crawl spaces?		X			
13	Has a termite/wood boring insect inspection been performed within the last year?		X			
BUILDING ENVELOPE						
Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")						
QUESTION		Y	N	Unk	NA	COMMENTS
14	Are there any wall, or window leaks?		X			
15	Are there any roof leaks?		X			
16	Is the roofing covered by a warranty or bond?	X				
17	Are there any poorly insulated areas?	X				Thermal scan issues
18	Is Fire Retardant Treated (FRT) plywood used?		X			
19	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		X			
20	Are there any leaks or pressure problems with natural gas service?		X			
21	Does any part of the electrical system use aluminum wiring?		X			
22	Do Commercial units have less than 200-Amp service?		X			
23	Are there any problems with the utilities, such as inadequate capacities?		X			

Town of Atkinson

Pre-Survey Questionnaire



ADA						
25	Has the management previously completed an ADA review?		X			
26	Have any ADA improvements been made to the property?		X			
27	Does a Barrier Removal Plan exist for the property?		X			
28	Has the Barrier Removal Plan been approved by an arms-length third party?		X			
Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")						
QUESTION		Y	N	Unk	NA	COMMENTS
29	Has building ownership or management received any ADA related complaints?		X			
30	Does elevator equipment require upgrades to meet ADA standards?				X	
PLUMBING						
31	Is the property served by private water well?		X			
32	Is the property served by a private septic system or other waste treatment systems?	X				
33	Is polybutylene piping used?		X			
34	Are there any plumbing leaks or water pressure problems?		X			

Issues or Concerns That EMG Should Know About?	
1.	
2.	
3.	

Items Provided to EMG Auditors				
	Yes	No	N/A	Additional Comments?
Access to All Mechanical Spaces	X	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Roof/Attic Space	X	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Building As-Built Drawings	X	<input type="checkbox"/>	<input type="checkbox"/>	
Site plan with bldg., roads, parking and other features	X	<input type="checkbox"/>	<input type="checkbox"/>	
Access to last 12/24 Months Common Area Utility Data	X	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Details of Mech, Elevator, Roof, Fire Contractors:	X	<input type="checkbox"/>	<input type="checkbox"/>	
Previous reports pertaining to the physical condition of	X	<input type="checkbox"/>	<input type="checkbox"/>	

Town of Atkinson Pre-Survey Questionnaire



property.				
ADA survey and status of improvements implemented.	X	<input type="checkbox"/>	<input type="checkbox"/>	
Current / pending litigation related to property condition.	X	<input type="checkbox"/>	<input type="checkbox"/>	
Any brochures or marketing information.	X	<input type="checkbox"/>	<input type="checkbox"/>	
Appraisal, either current or previously prepared.	X	<input type="checkbox"/>	<input type="checkbox"/>	
Summary of Projects executed in last 5 years	X	<input type="checkbox"/>	<input type="checkbox"/>	

Bill Innes
 Signature of person Interviewed or completing form

January 7 2020
 Date

Appendix D: Component Condition Report

Component Condition Report

Library						
UF Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Structure						
B1015	Site	Good	Exterior Stairs, Concrete	50 SF	38	1700148
Facade						
B2011	Building exterior	Good	Exterior Wall, Fiber Cement Siding, 1-2 Stories	5,500 SF	33	1700115
B2011	Building exterior	Poor	Exterior Wall, Wood Clapboard Siding, 1-2 Stories, Repair	2 SF	0	1700117
B2021	Building exterior	Fair	Window, 12 SF	41	18	1701014
B2021	Building exterior	Good	Window, 12 SF	32	18	1701015
B2023	Building exterior	Fair	Storefront, Metal-Framed Windows w/out Door(s)	150 SF	18	1700141
B2032	Building exterior	Fair	Exterior Door, Steel	1	28	1700127
B2032	Building exterior	Good	Exterior Door, Steel	2	28	1700155
B2032	Building exterior	Fair	Exterior Door, Steel	2	28	1700120
B2032	Building exterior	Good	Exterior Door, Steel	3	28	1700142
B2032	Building exterior	Good	Exterior Door, Steel	1	28	1700152
Roofing						
B3011	Attic	Poor	Roof, any type per man-day, Repair	9	0	1700171
B3011	Roof	Fair	Roof, Asphalt Shingle 20-Year	11,600 SF	8	1700186
B3016	Building exterior	NA	Gutters & Downspouts, Aluminum w/ Fittings, Install	30 LF	20	1700183
B3019	Building exterior	Fair	Awning, 24 SF	2	5	1700185
Interiors						
C1017	Children Room	Good	Interior Window, 6 SF	1	28	1700101
C1021	Hallway	Good	Interior Door, Wood Solid-Core	3	28	1700106
C1021	Children Room	Good	Interior Door, Wood Solid-Core w/ Glazing Decorative High-End	1	28	1700168
C1021		Good	Interior Door, Wood Solid-Core	1	28	1700111
C1021	Hallway	Fair	Interior Door, Wood Solid-Core w/ Glazing Decorative High-End	2	28	1700169
C1021	Hallway	Good	Interior Door, Steel w/ Extensive Glazing	1	28	1700176
C2011	Attic	Good	Interior Stairs, Metal or Pan-Filled	30 SF	38	1700177
C3012	Throughout building	Fair	Interior Wall Finish, any surface, Prep & Paint	11,600 SF	5	1700161
C3024	Hallway	Fair	Interior Floor Finish, Ceramic Tile	500 SF	28	1700139
C3024	Children Room	Fair	Interior Floor Finish, Vinyl Tile (VCT)	300 SF	3	1700150
C3025	Throughout building	Fair	Interior Floor Finish, Carpet Commercial Standard	10,400 SF	5	1700151
Plumbing						
D2011	Children Room	Good	Toilet, GPF	1	18	1700164
D2011	Family restroom	Good	Toilet, GPF	1	18	1700103
D2011	Woman restroom	Good	Toilet, GPF	1	18	1700096
D2011	Men's restroom	Good	Toilet, GPF	1	18	1700162
D2011	Children Room	Good	Toilet, GPF	1	18	1700131
D2014	Children Room	Good	Sink/Lavatory, Wall-Hung, Vitreous China	1	18	1700098
D2014	Woman restroom	Good	Sink/Lavatory, Wall-Hung, Vitreous China	1	18	1700100
D2014	Family restroom	Good	Sink/Lavatory, Wall-Hung, Vitreous China	1	18	1700125

Library						
UF Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D2014	Children Room	Good	Sink/Lavatory, Wall-Hung, Vitreous China	1	18	1700114
D2014	Children Room	Good	Commercial Kitchen Sink, Stainless Steel, 1-Bowl	1	18	1700104
D2014	Kitchen	Good	Commercial Kitchen Sink, Stainless Steel, 1-Bowl	1	18	1700154
D2014	Men's restroom	Good	Sink/Lavatory, Wall-Hung, Vitreous China	1	18	1700163
D2023	Attic	Fair	Domestic Circulation Pump, .75 HP	1	3	1700172
D2023	Attic	Fair	Domestic Circulation Pump, .50 HP	1	3	1700180
D2023	Attic	Fair	Domestic Circulation Pump, .75 HP	1	3	1700138
D2023	Attic	Fair	Domestic Circulation Pump, .75 HP	1	3	1700126
D2023	Attic	Fair	Domestic Circulation Pump, .5 HP	1	3	1700160
Fire Suppression						
D4031	Throughout building	NA	Fire Extinguisher, Type ABC, up to 20 LB	1	4	1700121
HVAC						
D3021	Attic	Good	Boiler, 20 - 125 MBH [Boiler 1]	1	18	1700182
D3021	Attic	Good	Boiler, 20 - 125 MBH [Boiler 2]	1	18	1700116
D3022	Attic	Good	Expansion Tank, GAL	1	27	1700118
D3032	Site	Fair	Condensing Unit/Heat Pump, 12.5 TON	1	2	1700181
D3032	Site	Fair	Condensing Unit/Heat Pump, 30 TON [ACUU-2]	1	3	1700107
D3032	Site	Fair	Ductless Split System, .75 - 1 TON	1	10	1701023
D3041	Attic	Good	Air Handler (AHU), 30,000 CFM [AHU-1]	1	18	1700130
D3041	Attic	Good	Air Handler (AHU), 30000 CFM [AHU-2]	1	18	1700166
D3044	Attic	Fair	Distribution Pump, 3 HP [HWP-3]	1	3	1700108
D3044	Attic	Fair	Distribution Pump, 3 HP [HWP-4]	1	3	1700165
D3051	Attic	Fair	Unit Heater, 11 - 25 MBH	1	8	1700137
Electrical						
D5012	Electrical room	Good	Main Distribution Panel, 200 AMP [PP1]	1	18	1700119
D5012	Electrical room	Good	Main Distribution Panel, 225 AMP [PP2]	1	18	1700184
D5012	Attic	Good	Main Distribution Panel, 600 AMP [MDP]	1	18	1700144
D5012	Electrical room	Good	Main Distribution Panel, 200 AMP [MP1]	1	18	1700156
D5012	Site	Fair	Transfer Switch, 600 AMP	1	13	1700146
D5012	Attic	Good	Main Distribution Panel, 200 AMP [MP2]	1	18	1700097
D5012	Electrical room	Good	Main Distribution Panel, 225 AMP [PP3]	1	18	1700109
D5022	Main Library	Fair	LED Lighting Fixture, 11 WATT	4	10	1700153
D5022	Building exterior	Fair	LED Lighting Fixture, 20 WATT	7	8	1700099
D5022	Main Library	Fair	Fluorescent Lighting Fixture, 32 WATT	50	8	1700140
D5022	Site	Fair	LED Lighting Fixture, 15 WATT	2	8	1700095
D5022	Building exterior	Fair	Compact Fluorescent Lighting Fixture, 32 WATT	4	8	1700157
D5029	Children Room	Fair	Lighting System, 100	500 SF	10	1700113
D5092	Site	Good	Generator, 105 - 125 kW	1	17	1701009
D5092	Throughout building	Fair	Emergency/Exit Combo LED	5	5	1700128
Fire Alarm & Comm						

Library						
UF Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D5037	Hallway	Fair	Fire Alarm Control Panel, Addressable	1	3	1700175
Equipment/Special						
E1028	Hallway	Fair	Defibrillator (AED), Cabinet Mounted	1	5	1700159
E1094	Kitchen	Fair	Residential Appliances, Refrigerator, 14-18 CF	1	3	1700135
E2012	Children Room	Fair	Kitchen Counter, Plastic Laminate, Postformed	5 LF	3	1700178
E2012	Kitchen	Good	Kitchen Counter, Plastic Laminate, Postformed	6 LF	3	1700143
Pavement						
G2022	Site	Poor	Parking Lots, Cut & Patch	182 SF	0	1700767
G2022	Site	Fair	Parking Lots, Asphalt Pavement, Seal & Stripe	7,160 SF	3	1700766
G2022	Site	Fair	Parking Lots, Asphalt Pavement, Mill & Overlay	7,160 SF	13	1700102
G2023	Site	Good	Parking Lots, Bollard	4	18	1700145
G2023	Site	Good	Parking Lots, Bollard	2	18	1700122
G2031	Site	Good	Pedestrian Pavement, Sidewalk, Clay Brick/Masonry Pavers	600 SF	18	1700158
G2031	Site	Fair	Pedestrian Pavement, Sidewalk, Asphalt	100 SF	13	1700149
Site Development						
G2042	Site	Fair	Retaining Wall, Brick/Stone (per SF Face)	580 SF	28	1700764
G2044	Site	Fair	Signage, Property, Monument/Pylon, Replace/Install	1	8	1700147
G2045	Site	Fair	Site Furnishings, Bike Rack	1	13	1700167
G2045	Site	Fair	Site Furnishings, Park Bench, Metal/Wood/Plastic	1	8	1700170
G2049	Site	Good	Dumpster Accessories, Concrete Pad, Replace/Install	20 SF	38	1700094
Site Lighting						
G4021	Site	Fair	Aluminum Pole, 8 - 16 FEET, Replace/Install	3	18	1700136
G4021	Site	Fair	Site Pole Light, 80 - 100 WATT, Replace/Install	2	8	1700123

Appendix E: Replacement Reserves

Replacement Reserves Report

Library

1/31/2020

Location	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Total Escalated Estimate
Library	\$10,959	\$0	\$22,491	\$97,878	\$169	\$114,536	\$0	\$0	\$106,355	\$0	\$9,757	\$0	\$0	\$80,229	\$227	\$153,927	\$0	\$130,906	\$739,319	\$0	\$488	\$1,467,240
Grand Total	\$10,959	\$0	\$22,491	\$97,878	\$169	\$114,536	\$0	\$0	\$106,355	\$0	\$9,757	\$0	\$0	\$80,229	\$227	\$153,927	\$0	\$130,906	\$739,319	\$0	\$488	\$1,467,240

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Deficiency Repair Estimate
B2011	1700117	Exterior Wall, Wood Clapboard Siding, 1-2 Stories, Repair	0	12	0	2	SF	\$29.00	\$58	\$58																					\$58
B2021	1701014	Window, 12 SF, Replace	30	12	18	41	EA	\$600.00	\$24,600																	\$24,600					\$24,600
B2021	1701015	Window, 12 SF, Replace	30	12	18	32	EA	\$600.00	\$19,200																	\$19,200					\$19,200
B2023	1700141	Storefront, Metal-Framed Windows w/out Door(s), Replace	30	12	18	150	SF	\$55.00	\$8,250																	\$8,250					\$8,250
B3011	1700171	Roof, any type per man-day, Repair	0	12	0	9	EA	\$1,100.00	\$9,900	\$9,900																					\$9,900
B3011	1700186	Roof, Asphalt Shingle 20-Year, Replace	20	12	8	11600	SF	\$3.80	\$44,080									\$44,080													\$44,080
B3016	1700183	Gutters & Downspouts, Aluminum w/ Fittings, Install	20	0	20	30	LF	\$9.00	\$270																			\$270			\$270
B3019	1700185	Awning, 24 SF, Replace	10	5	5	2	EA	\$200.00	\$400							\$400									\$400						\$800
C3012	1700161	Interior Wall Finish, any surface, Prep & Paint	10	5	5	11600	SF	\$1.50	\$17,400							\$17,400									\$17,400						\$34,800
C3024	1700150	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	12	3	300	SF	\$5.00	\$1,500				\$1,500													\$1,500					\$3,000
C3025	1700151	Interior Floor Finish, Carpet Commercial Standard, Replace	10	5	5	10400	SF	\$7.50	\$78,000							\$78,000									\$78,000						\$156,000
D2011	1700164	Toilet, GPF, Replace	30	12	18	1	EA	\$900.00	\$900																	\$900					\$900
D2011	1700103	Toilet, GPF, Replace	30	12	18	1	EA	\$900.00	\$900																	\$900					\$900
D2011	1700096	Toilet, GPF, Replace	30	12	18	1	EA	\$900.00	\$900																	\$900					\$900
D2011	1700162	Toilet, GPF, Replace	30	12	18	1	EA	\$900.00	\$900																	\$900					\$900
D2011	1700131	Toilet, GPF, Replace	30	12	18	1	EA	\$900.00	\$900																	\$900					\$900
D2014	1700098	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	12	18	1	EA	\$1,500.00	\$1,500																	\$1,500					\$1,500
D2014	1700100	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	12	18	1	EA	\$1,500.00	\$1,500																	\$1,500					\$1,500
D2014	1700125	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	12	18	1	EA	\$1,500.00	\$1,500																	\$1,500					\$1,500
D2014	1700114	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	12	18	1	EA	\$1,500.00	\$1,500																	\$1,500					\$1,500
D2014	1700104	Commercial Kitchen Sink, Stainless Steel, 1-Bowl, Replace	30	12	18	1	EA	\$1,600.00	\$1,600																	\$1,600					\$1,600
D2014	1700154	Commercial Kitchen Sink, Stainless Steel, 1-Bowl, Replace	30	12	18	1	EA	\$1,600.00	\$1,600																	\$1,600					\$1,600
D2014	1700163	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	12	18	1	EA	\$1,500.00	\$1,500																	\$1,500					\$1,500
D2023	1700172	Domestic Circulation Pump, .75 HP, Replace	15	12	3	1	EA	\$2,600.00	\$2,600				\$2,600													\$2,600					\$5,200
D2023	1700180	Domestic Circulation Pump, .50 HP, Replace	15	12	3	1	EA	\$2,600.00	\$2,600				\$2,600													\$2,600					\$5,200
D2023	1700138	Domestic Circulation Pump, .75 HP, Replace	15	12	3	1	EA	\$2,600.00	\$2,600				\$2,600													\$2,600					\$5,200
D2023	1700126	Domestic Circulation Pump, .75 HP, Replace	15	12	3	1	EA	\$3,100.00	\$3,100				\$3,100													\$3,100					\$6,200
D2023	1700160	Domestic Circulation Pump, .5 HP, Replace	15	12	3	1	EA	\$2,600.00	\$2,600				\$2,600													\$2,600					\$5,200
D3021	1700182	Boiler, 20 - 125 MBH, Replace	30	12	18	1	EA	\$12,700.00	\$12,700																	\$12,700					\$12,700
D3021	1700116	Boiler, 20 - 125 MBH, Replace	30	12	18	1	EA	\$12,700.00	\$12,700																	\$12,700					\$12,700
D3032	1700181	Condensing Unit/Heat Pump, 12.5 TON, Replace	15	13	2	1	EA	\$21,200.00	\$21,200			\$21,200														\$21,200					\$42,400
D3032	1700107	Condensing Unit/Heat Pump, 30 TON, Replace	15	12	3	1	EA	\$45,000.00	\$45,000				\$45,000													\$45,000					\$90,000
D3032	1701023	Ductless Split System, .75 - 1 TON, Replace	15	5	10	1	EA	\$3,500.00	\$3,500											\$3,500											\$3,500
D3041	1700130	Air Handler (AHU), 30,000 CFM, Replace	30	12	18	1	EA	\$100,000.00	\$100,000																	\$100,000					\$100,000
D3041	1700166	Air Handler (AHU), 30000 CFM, Replace	30	12	18	1	EA	\$100,000.00	\$100,000																	\$100,000					\$100,000
D3044	1700108	Distribution Pump, 3 HP, Replace	15	12	3	1	EA	\$5,100.00	\$5,100				\$5,100													\$5,100					\$10,200
D3044	1700165	Distribution Pump, 3 HP, Replace	15	12	3	1	EA	\$5,100.00	\$5,100				\$5,100													\$5,100					\$10,200
D3051	1700137	Unit Heater, 11 - 25 MBH, Replace	20	12	8	1	EA	\$4,300.00	\$4,300									\$4,300													\$4,300
D4031	1700121	Fire Extinguisher, Type ABC, up to 20 LB, Replace	10	6	4	1	EA	\$150.00	\$150					\$150										\$150							\$300
D5012	1700146	Transfer Switch, 600 AMP, Replace	25	12	13	1	EA	\$25,000.00	\$25,000														\$25,000								\$25,000
D5012	1700119	Main Distribution Panel, 200 AMP, Replace	30	12	18	1	EA	\$2,000.00	\$2,000																	\$2,000					\$2,000
D5012	1700184	Main Distribution Panel, 225 AMP, Replace	30	12	18	1	EA	\$2,000.00	\$2,000																	\$2,000					\$2,000
D5012	1700144	Main Distribution Panel, 600 AMP, Replace	30	12	18	1	EA	\$7,000.00	\$7,000																	\$7,000					\$7,000
D5012	1700156	Main Distribution Panel, 200 AMP, Replace	30	12	18	1	EA	\$6,000.00	\$6,000																	\$6,000					\$6,000
D5012	1700097	Main Distribution Panel, 200 AMP, Replace	30	12	18	1	EA	\$2,000.00	\$2,000																	\$2,000					\$2,000
D5012	1700109	Main Distribution Panel, 225 AMP, Replace	30	12	18	1	EA	\$2,000.00	\$2,000																	\$2,000					\$2,000
D5022	1700099	LED Lighting Fixture, 20 WATT, Replace	20	12	8	7	EA	\$190.00	\$1,330									\$1,330													\$1,330
D5022	1700140	Fluorescent Lighting Fixture, 32 WATT, Replace	20	12	8	50	EA	\$233.00	\$11,650									\$11,650													\$11,650
D5022	1700095	LED Lighting Fixture, 15 WATT, Replace	20	12	8	2	EA	\$190.00	\$380									\$380													\$380
D5022	1700157	Compact Fluorescent Lighting Fixture, 32 WATT, Replace	20	12	8	4	EA	\$149.00	\$596									\$596													\$596
D5022	1700153	LED Lighting Fixture, 11 WATT, Replace	20	10	10	4	EA	\$190.00	\$760									\$760													\$760
D5029	1700113	Lighting System, 100, Replace	20	10	10	500	SF	\$6.00	\$3,000									\$3,000								\$15,000					\$3,000
D5037	1700175	Fire Alarm Control Panel, Addressable, Replace	15	12	3	1	EA	\$15,000.00	\$15,000				\$15,000													\$15,000					\$30,000
D5092	1700128	Emergency/Exit Combo LED, , Replace	10	5	5	5	EA	\$300.00	\$1,500					\$1,500									\$1,500								\$3,000
D5092	1701009	Generator, 105 - 125 kW, Replace	25	8	17	1	EA	\$58,000.00	\$58,000																	\$58,000					\$58,000

Uniformat Code	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Deficiency Repair Estimate	
E1028	1700159	Defibrillator (AED), Cabinet Mounted, Replace	10	5	5	1	EA	\$1,500.00	\$1,500						\$1,500										\$1,500							\$3,000
E1094	1700135	Residential Appliances, Refrigerator, 14-18 CF, Replace	15	12	3	1	EA	\$600.00	\$600				\$600															\$600				\$1,200
E2012	1700178	Kitchen Counter, Plastic Laminate, Postformed, Replace	15	12	3	5	LF	\$50.00	\$250				\$250															\$250				\$500
E2012	1700143	Kitchen Counter, Plastic Laminate, Postformed, Replace	15	12	3	6	LF	\$50.00	\$300				\$300															\$300				\$600
G2022	1700767	Parking Lots, , Cut & Patch	0	0	0	182	SF	\$5.50	\$1,001	\$1,001																						\$1,001
G2022	1700766	Parking Lots, Asphalt Pavement, Seal & Stripe	5	2	3	7160	SF	\$0.45	\$3,222				\$3,222					\$3,222					\$3,222					\$3,222				\$12,888
G2022	1700102	Parking Lots, Asphalt Pavement, Mill & Overlay	25	12	13	7160	SF	\$3.50	\$25,060														\$25,060									\$25,060
G2023	1700145	Parking Lots, Bollard, Replace	30	12	18	4	EA	\$1,000.00	\$4,000																			\$4,000				\$4,000
G2023	1700122	Parking Lots, Bollard, Replace	30	12	18	2	EA	\$1,000.00	\$2,000																			\$2,000				\$2,000
G2031	1700149	Pedestrian Pavement, Sidewalk, Asphalt, Replace	25	12	13	100	SF	\$5.50	\$550														\$550									\$550
G2031	1700158	Pedestrian Pavement, Sidewalk, Clay Brick/Masonry Pavers, Replace	30	12	18	600	SF	\$33.00	\$19,800																		\$19,800					\$19,800
G2044	1700147	Signage, Property, Monument/Pylon, Replace/Install	20	12	8	1	EA	\$9,500.00	\$9,500									\$9,500														\$9,500
G2045	1700170	Site Furnishings, Park Bench, Metal/Wood/Plastic, Replace	20	12	8	1	EA	\$500.00	\$500									\$500														\$500
G2045	1700167	Site Furnishings, Bike Rack, Replace	25	12	13	1	EA	\$800.00	\$800														\$800									\$800
G4021	1700123	Site Pole Light, 80 - 100 WATT, Replace/Install	20	12	8	2	EA	\$4,200.00	\$8,400									\$8,400														\$8,400
G4021	1700136	Aluminum Pole, 8 - 16 FEET, Replace/Install	30	12	18	3	EA	\$1,750.00	\$5,250																			\$5,250				\$5,250
Totals, Unescalated										\$10,959	\$0	\$21,200	\$89,572	\$150	\$98,800	\$0	\$0	\$83,958	\$0	\$7,260	\$0	\$0	\$54,632	\$150	\$98,800	\$0	\$79,200	\$434,272	\$0	\$270		\$979,223
Totals, Escalated (3.0% inflation, compounded annually)										\$10,959	\$0	\$22,491	\$97,878	\$169	\$114,536	\$0	\$0	\$106,355	\$0	\$9,757	\$0	\$0	\$80,229	\$227	\$153,927	\$0	\$130,906	\$739,319	\$0	\$488		\$1,467,240

* Markup/LocationFactor (1) has been included in unit costs.