FACILITIES ASSESSMENT

PAWTUCKET DEPARTMENT OF PUBLIC WORKS

Pawtucket, Rhode Island

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Submitted by,

SMMA

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EXECUTIVE SUMMARY

INTRODUCTION AND PROCESS

Process

The SMMA assessment team of architects and engineers evaluated the condition of twelve Pawtucket municipal buildings totaling 208,682 gross square feet. This assessment consisted of three principal tasks: review of the existing conditions documents provided to us, an intensive preliminary discussion between DPW staff and SMMA's architects and engineers, and a series of site visits to each building over a period of two weeks, between September 26 and October 4, 2013. Site visits included non-destructive, visual only evaluations of the structures and discussions of the various facilities with Pawtucket maintenance personnel, including interviews about any programmatic concerns. The efforts of our review, discussions and observations are contained in this report.

Our work also included a preliminary draft report which was reviewed with DPW staff, cost estimating of the identified deficiencies by an independent construction cost estimator, and a final review of the report including the cost information.

One immediately identifiable deficiency is the lack of any notable documentation on several of the subject buildings, including reliable existing conditions drawings, records of regular maintenance, and past repairs performed by outside contractors. This was particularly true of previously executed roofing and flashing repairs. The "General Recommendations" section of this summary will propose several modest changes in Pawtucket policies and procedures that might help the City better monitor the condition of its facilities and the performance of outside vendors.

Inspection Team

For each Pawtucket facility, SMMA provided the following visual inspections:

- Architect specializing in functional programming and spatial analysis
- Architect specializing in code, building envelope, ADA compliance
- Civil/Site engineer
- Structural engineer
- Plumbing and fire protection engineer
- Heating, ventilating, and air-conditioning (HVAC) engineer
- Electrical engineer

Building Systems Evaluated

At each Pawtucket facility, the SMMA team evaluated ten following building systems and attributes:

- Program Evaluation (Suitability for function)
- Site Attributes
- Structure
- Exterior Envelope
- Interior Finishes
- Plumbing System
- Automatic Fire Suppression System

- Heating & Ventilating Systems
- Electrical Systems
- Provisions for Accessibility

Rating System

Each of these ten buildings systems was rated on a 10 point scale with 1 being the worst condition and 10 the best condition. Items rated "1" are judged to have failed and require immediate replacement. Those systems rated between 2 and 7 are recommended for replacement in three to five years with items rated 8 and above requiring only regular maintenance.

- 1 – System failure
- 2-4 Items to be replaced within 3 years
- 5-7 Items to be replaced within 5 years
- 8-9 Items requiring regular maintenance
- 10 Best condition, new

Cost Estimating

Based on these assessments a professional construction cost estimator, A.M. Fogarty Associates, assigned estimated conceptual level cost estimate for correcting the deficiencies identified in each building. These estimates are intended to allow the City of Pawtucket to prioritize building repairs based on urgency, critical systems, and the need to maintain essential governmental and public safety services to the citizens of Pawtucket. It should be noted that this estimate is based on a visual inspection by experienced professionals. These figures are an accurate order of magnitude and may be used for approximating a budget for repairs. However, these numbers should not be considered as a substitute for detailed estimating based on detailed and developed design documents nor for bids by qualified contractors.

Space and Program Deficiencies

As part of these facilities assessments, SMMA provided the services of an architect specializing in the programming of building types. Anecdotal evidence indicated that several essential municipal functions were operating in crowded conditions that could or already have impaired their function.

In general, this survey revealed that some relatively minor renovations to existing buildings could significantly improve their function without additional construction. The one major exception to this finding is the public safety functions housed at City Hall where both Police and Fire Department Headquarters are significantly undersized. We estimate that to provide sufficient space for these essential public safety departments to adequately function would require an addition to the existing City Hall costing between $7,000,000 and $9,000,000. This is not to suggest that such an addition is advisable or even possible, rather it is intended to reflect the approximate magnitude of the square footage deficit.

Investment in Building Repair

Buildings are subject to extremes of climate and use and require constant investment in maintenance and repair to remain in good condition. Every building

component has a life expectancy: flat membrane roofs can be expected to last for twenty to twenty five years before they need to be replaced while boilers generally have a life expectancy of forty to fifty years. When viewed as a complete system, most buildings have a life expectancy of forty to sixty years or, in other words, on average they need complete replacement every fifty years.

Capital Repair and Replacement Reserve

The dollars that must be invested annually in a given building depends on the value of that building, but can be stated as a percentage of the net present building value (NPBV). Net present value (NPV) is a financial term describing the comparison of the present value of money today to the present value of money in the future, taking inflation and returns into account. Net present building value (NPBV), similarly, states the cost to construct a building for the same program at today's square foot rates. Using the assumption that a building needs to be renewed or replaced every fifty years, noted above, 1/50 (2%) of the NPBV needs to be set aside to continually renew or replace a facility. Taking into account the future "interest accruing" value of such funds or the knowledge that buildings deteriorate slowly at first and faster later in their life, this percentage of NPBV can be reduced to between 1 and 1.5%. If the total value or replacement cost of all Pawtucket's municipal facilities is $89,841,321, then the City should be investing between $898,413 and $1,347,620 each year in repairs and replacement to keep the buildings in good condition. Spending .5% ($449,297), or less, results in deteriorating facilities. In fact, Pawtucket spends $350,000 maintaining its buildings. Compounding this short fall is the fact that this spending policy has been in force for many years so that the deficit, as seen in Table 5 below, now stands at an estimated $19,256,158.

BUILDING CONDITIONS SURVEY SUMMARY

Prioritization

The SMMA assessment demonstrates that considerable work and expenditure will be required to bring all twelve buildings up to a reasonable level of repair. However, due to funding and scheduling limitations, the City will be obliged to prioritize the recommended building repairs. The logic in making these recommendations flows from the premise that, to fulfill their public function, buildings must first be made weather tight. Next, a building must be safe to occupy and finally, that the plumbing, mechanical, and electrical systems be operational under emergency conditions. We consider the following to be high priority projects:

Table 1 - Facilities Requiring Immediate Re-Roofing

Building Name	Estimated Cost ($)
City Hall, Police Headquarters, Fire Station #2	1,076,625
Fire Station #4	269,156
Sayles-Burns Library	1,505,579
Senior Center	340,606
ESTIMATED TOTAL	**3,191,966**

Table 2 - Facilities with Code Violations Requiring Immediate Correction

Building Name	Estimated Cost ($)
Senior Center Escape Stair Repair	26,100
DPW Maintenance Facility Egress Repair	19,575
ESTIMATED TOTAL	**45,675**

Table 3 - Facilities with Plumbing Deficiencies Requiring Immediate Correction

Building Name	Estimated Cost ($)
City Hall, replace boiler room sump pumps, controllers	16,312
ESTIMATED TOTAL	**16,312**

Table 4 - Facilities with Electrical Deficiencies Requiring Immediate Correction

Building Name	Estimated Cost ($)
City Hall, Police Headquarters, Fire Station #2	296,806
Fire Station #1	71,834
Fire Station #3	61,849
Fire Station #4	92,433
Fire Station #6	56,083
Sayles-Burns Library	21,368
Senior Center	34,273
DPW Maintenance Facility	206,059
ESTIMATED TOTAL	**840,705**

The total estimated cost of these high priority repairs listed in Tables 1-4 above is $4,094,658. In addition to these High Priority repairs, we have grouped all the identified building deficiencies into repairs that **must** be done, those repairs that **should** be done, and those that Pawtucket should **consider** doing. That grouping is shown below in Table 5.

Table 5 - Repairs Prioritized by "Must", "Should" and "Consider"

Building Name	Must ($)	Should ($)	Consider ($)
City Hall, Police Headquarters, Fire Station #2	4,161,556	1,830,883	1,566,000
Fire Station #1	268,510	384,681	
Fire Station #3	320,239	748,387	

Building Name	Must ($)	Should ($)	Consider ($)
Fire Station #4	254,971	667,078	
Fire Station #5	375,338	354,010	
Fire Station #6	85,771	452,543	
Sayles-Burns Library	1,952,639	1,093,430	
Senior Center	660,448	591,278	
Department of Public Works	1,908,219	1,121,735	
Police Annex	50,943	165,450	
Slater Park Headquarters	30,510	43,874	
Animal Shelter	105,627	61,988	
ESTIMATED TOTAL	**10,174,771**	**7,515,337**	**1,566,000**

COST ESTIMATE SUMMARY BY PRIORITY

General Recommendations for Systematic Stewardship of Facilities

During the course of this study it became apparent to the SMMA Assessment Team that the lack of reliable existing conditions drawings and records of building repairs hindered our efforts. Going forward, we recommend that the City of Pawtucket make several administrative changes. While not expensive, these changes could make future facilities improvements more cost effective and provide design and construction professionals with a more reliable basis for making future recommendations.

- Engage an outside firm to produce existing conditions drawings for all facilities. Drawings should be in CAD and include as much systems information as possible. At current prices, all Pawtucket facilities could be documented for approximately $20,000.
- The City should consider creating a central file of all repairs, alterations and routine maintenance on a building-by-building basis. This would include all permits, drawings and specifications for projects regardless of size or cost.
- In several instances in would appear that the City may not have received full value for the dollars spent for repairs and for new construction. As part of any project, the City should insist on industry standard project close-out procedures including building systems commissioning and updated as-built drawings in CAD. For major construction or repair projects the City should consider retaining an Owner's Project Manager (OPM).

CONCLUSIONS

The City of Pawtucket faces numerous challenges in bringing their facilities to a reasonable standard of service. Of these, the two most important are replacing roofs in four of the facilities and upgrading the electrical capacity and equipment in eight facilities. Since almost all of these twelve facilities are essential to public

health and safety any improvements must be carefully planned and executed so as not to compromise or disrupt services during construction. As recommended earlier in this summary, we believe it is essential for the City to engage an Owner's Project Manager to ensure that projects are correctly scoped, managed and completed according to the Architect/Engineer's specifications.

The importance of roofs and the integrity of the building envelope should be self-evident. We would also like to emphasize the importance of electrical systems in protecting the public. Without power, information and communications systems are useless. Pawtucket must take immediate steps to update its deteriorating electrical systems.

There were several areas of investigation beyond the scope of this study which require the expertise of forensic building specialists. We recommend such studies be conducted prior to undertaking any major repair projects, specifically for the re-roofing of the Sayles Library and the City Hall Tower restoration.
There is one outstanding area of space deficiency which requires immediate attention. Our preliminary survey indicates over-crowding at the Fire Department second floor headquarters space and severe over-crowding at the Central Police Department. This situation, if allowed to continue, could comprise public safety as well as the criminal justice system. We recommend that the City undertake a study to provide a space-by-space study of these Departments to determine its current and projected needs.

We would like to thank the City of Pawtucket for the opportunity to assist them with this study. In performing our field surveys we found employees to be helpful, friendly and knowledgeable. One, in particular, Pawtucket's Chief Librarian, Susan Reed, has made herself something of an expert in building systems and repairs. Ms. Reed's management skills and continuous tenure at the library has preserved and protected this resource for all the people of Pawtucket.

Based on our estimate, it will cost the City $19,256,158 to update the twelve facilities examined in this study. At 208,718 gross square feet of area, that works out to $92.25 per square foot. To replace these buildings would cost four times this amount, and accordingly, we recommend that Pawtucket renovate and update.

Facility	Must	Should	Consider	
City Hall	4,161,556	1,830,883	1,566,000	
FS#1	268,510	384,681		
FS#3	320,239	748,387		
FS#4	254,971	667,078		
FS#5	375,388	354,010		
FS#6	85,771	452,543		
Library	1,952,639	1,093,430		
Senior Center	660,448	591,278		
DPW	1,908,219	1,121,735		
Police Annex	50,943	165,450		
Slater Hdqts.	30,510	43,874		
Animal Shelter	105,627	61,988		
Total	10,174,821	7,515,337	1,566,000	19,256,158

City Hall-Police-Fire Station #2

		Description of Work	Must	Should	Consider
A. Substructure					
	A10-Foundations				
	A20-Basement Construction				
B. Shell					
	B10-Superstructure	Repair failed roof planks	39,150		
	B20-Exterior Enclosure	Repair cast stone cracks and spalls	62,250		
		Restore, repair building masonry	1,827,000		
		Restore, repair tower masonry*			1,566,000
	B30-Roofing	Remove and replace entire roof and flashing	1,076,625		
C. Interiors					
	C10-Interior Construction	Replace ceiling at apparatus room	156,600		
		Interior repairs		523,613	
	C20-Stairs				
	C30-Interior Finishes	Included with interior repairs above			
D. Services					
	D10-Conveying	Replace existing elevator equipment and cab	130,500		
	D20-Plumbing	Remove, replace, update plumbing fixtures		162,224	
		Remove and replace roof drains	154,642		
		Install backflow preventers	42,313		
		Install new master thermostat mixing valves	19,575		
		Plumbing system, controls upgrades		77,713	
		Replace sump pump and alarm control in basement	16,312		
	D30-HVAC	Replace steam control valves	46,980		
		Add office split systems	84,825		
		Upgrade ventilation	130,500		
		Replace rooftop unit	45,675		
		Replace truck bay infrared heaters		32,625	
		Replace dispatch AC unit		19,575	
		Upgrade temperature controls		180,471	
	D40-Fire Protection				
	D50-Electrical	Update panel boards and emergency power	135,353		
		Improve interior, exterior lighting, receptacles		343,992	
		Upgrade fire alarm	135,353		
		Mechanical wiring		9,788	
		Separate emergency from normal power	26,100		
E. Equipment & Furnishings					
	E10-Equipment				
	E20-Furnishings				
F. Special Construction & Demolition					
	F10-Special Construction				
	F20-Selective Bldg. Demo.				
G. Building Sitework					
		Rebuild curb inlet, lot #4	22,185		
		Reconfigure ADA parking spaces	26.491		
		Repave Lots # 1 and 2		377,411	
		Repair pavement, sidewalk cracks, deficiencies		103,471	
		Repair cracks at Leather Avenue drive, sidewalk	9,592		
TOTAL			**4,161,556**	**1,830,883**	**1,566,000**

* Consider restoring masonry at tower pending re-roofing and subsequent study to diagnose causes of any remaining water infiltration.

H. Program/Functional/Space Deficiencies

City Hall

The Planning Department should be re-located in City Hall
The building is not ADA accessible. Vertical transport and toilets must be added.
Most rooms are undersized for their function

Police Department Headquarters

Most rooms undersized for function, 40-60% additional space required from existing
All investigators should be consolidated into one space
All evidence storage should be consolidated in one secure location

Fire Department Headquarters

Need large and small conference rooms
Need open office space for 6 fire inspectors, records, and plan review
Need 3 private offices, two open offices, reception desk and waiting area for 6
Space must be accessible

Fire Station #2

Most rooms undersized
Battalion chiefs need private toilets
TV room should be remote from sleeping quarters
Kitchen should be remote from apparatus room
Apparatus room requires smoke extractors

Fire Station #1

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Replace garage entrance thresholds		3,262	
	Replace exterior windows		52,931	
B30-Roofing	Roofing repairs	45,675		
C. Interiors				
C10-Interior Construction	Build interior fire separations	9,788		
	Replace apparatus bay ceiling	117,450		
	Provide code compliant exit signs	4,894		
	Interior renovations, upgrades		112,341	
C20-Stairs	Replace basement stairs, upper railing	18,923		
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Remove, replace plumbing fixtures, upgrade system		116,732	
D30-HVAC	Replace hot water baseboard		49,590	
	New split ac system		13,050	
D40-Fire Protection				
D50-Electrical	Update panel boards, wiring devices	56,239		
	Improve interior, exterior lighting		32,990	
	Replace fire alarm	15,541		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Provide new ADA parking space		3,785	
TOTAL		**268,510**	**384,681**	

Fire Station #3

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Replace exterior windows, re-caulk metal panels		94,127	
B30-Roofing	Remove and replace membrane roof		211,736	
	Repair masonry chimney, brick openings at roof	48,285		
C. Interiors				
C10-Interior Construction	Provide code compliant exit signs	3,915		
	Replace apparatus bay ceiling	117,450		
	Provide proper fire separations	19,575		
	Interior renovations, upgrades		136,862	
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Remove and replace existing plumbing fixtures		33,245	
	Upgrade plumbing system		45.218	
D30-HVAC	Provide gas service, infrared heaters, new boiler	69,165		
	Replace bathroom and shower exhaust		6,525	
	New AC split system		9,788	
D40-Fire Protection				
D50-Electrical	Update panel boards and emergency power	41,233		
	Upgrade electrical equipment, interior, exterior lighting		54,762	
	Upgrade fire alarm	20,616		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Provide new ADA parking space		3,785	
	Repair, repave drives, sidewalks, curbs		197,512	
TOTAL		**320,239**	**748,387**	

Fire Station #4

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Infill brick openings at garage		9,788	
B30-Roofing	Remove and replace membrane roofing and flashing		269,156	
C. Interiors				
C10-Interior Construction	Provide proper fire separations	19,575		
	Replace apparatus bay ceiling	117,450		
	Provide code compliant exit signs	4,894		
	Repair, upgrade interior spaces		66,066	
C20-Stairs				
C30-Interior Finishes	See above			
D. Services				
D10-Conveying				
D20-Plumbing	Remove and replace plumbing fixtures		33,245	
	Upgrade plumbing system		45,218	
D30-HVAC	New gas service, apparatus infrared heaters, boiler		69,165	
	Improve building, kitchen ventilation		42,413	
D40-Fire Protection				
D50-Electrical	Update panel boards, separate emergency power	61,622		
	Convert generator to dual fuel		13,050	
	Improve interior, exterior lighting, receptacles		65,537	
	Upgrade fire alarm	30,811		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Provide new ADA space, curb cuts	20,619		
	Repave lots, replace sidewalks		53,440	
TOTAL		**254,971**	**667,078**	

Fire Station #5

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Repair exposed glu lam structure	19,575		
	Repair damaged brick sills, repair exterior voids	29,362		
	Replace exterior windows		53,307	
B30-Roofing	Remove and replace roof and flashing	242,012		
C. Interiors				
C10-Interior Construction	Provide proper fire separations	19,575		
	Provide code compliant exit signs	4,894		
	Interior repairs, upgrades		34,582	
	Paint interior		29,985	
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Remove and replace toilet fixtures		33,245	
	Upgrade plumbing system, equipment		21,728	
D30-HVAC	Install new gas service, infrared heaters at apparatus		45,675	
	Bathroom exhaust, piping insulation		5,220	
D40-Fire Protection				
D50-Electrical	Update panel boards, separate emergency power	39,980		
	Convert generator to dual fuel		13,050	
	Improve interior, exterior lighting, receptacles		50,558	
	Upgrade fire alarm	19,990		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Replace 10%, concrete pavement		8,809	
	New traffic light, signage		57,851	
TOTAL		**375,388**	**354,010**	

Fire Station #6

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Repair brick, re-point sills	13,050		
	General exterior repairs		20,750	
B30-Roofing	Replace asphalt shingle room and flashing		75,168	
C. Interiors				
C10-Interior Construction	Provide proper fire separation between areas	10,440		
	Provide code compliant exit signs	2,936		
	Repair, upgrade interior		61,270	
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Remove and replace plumbing fixtures		30,341	
	Upgrade plumbing system, valves, insulation		18,205	
D30-HVAC	New gas service, infrared heaters, condensing boiler		69,165	
	Replace hot water baseboard and piping		74,776	
	New split AC system		9,788	
D40-Fire Protection				
D50-Electrical	Update panel boards, separate emergency power	37,388		
	Convert generator to dual fuel		13,050	
	Improve interior, exterior lighting, receptacles		47,535	
	Upgrade fire alarm	18,695		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Repave Lots #1 and #2		20,750	
	Create ADA parking space	3,262		
	Repair sidewalks, ramps		11,745	
TOTAL		**85,771**	**452,543**	

H. Program/Functional/Space Deficiencies

Station requires a separate day room

Provide toilets for adjacent athletic fields

Sayles-Burns Library

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Point exterior masonry		26,100	
B30-Roofing	Remove and replace copper roof*	1,051,112		
	Remove and replace membrane roof at Sayles	148,444		
	Remove and replace membrane roof at Burns	292,973		
	Remove and replace mambrane roof at connector	13,050		
C. Interiors				
C10-Interior Construction	Replace interior floor finish		533,889	
	Re-paint interior		266,944	
	Replace main circulation desk	52,200		
	Replace broken structural glass floor	3,262		
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying	New controller, fixture, power unit	84,825		
D20-Plumbing	Add emergency overflow to roof drains	23,490		
	Remove and replace plumbing fixtures		25,839	
	Provide additional floor drains		39,150	
	Install water-energy efficient components		62,250	
D30-HVAC	Replace chiller condensing unit	62,250		
	Modify AHU intake	26,100		
	New split AC system at mezzanine level	97,875		
	DDC control upgrade	52,200		
D40-Fire Protection				
D50-Electrical	New electrical panel	8,482		
	Mechanical wiring	23,490		
	Additional fire alarm strobes	3,098		
	Emergency bypass relays	9,788		
	Lighting and electrical system upgrades		72,964	
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Site repairs, repavings, re-settings		66,294	
TOTAL		**1,952,639**	**1,093,430**	

*Replace copper roof pending forensic study to determine extent replacement required

H. Program/Functional/Space Deficiencies

Provide three additional computer rooms per floor, one each for children, adults, seniors
Create a functioning service entrance
Provide four additional classroom spaces
Create Help Desks on every floor

Pawtucket Senior Center

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Repair brick, tower repair	91,350		
	Replace failed window units	63,196		
B30-Roofing	Remove and replace membrane roofing and flashing	330,818		
	Remove and replace gutters and downspouts	9,788		
C. Interiors				
C10-Interior Construction	Partial interior painting		39,497	
	Partial floor replacement		88,870	
	Repair water damage at front windows	13,050		
	Relocate exhaust air shaft at rear stair	6,525		
	Install acoustic treatment at lobby		9,788	
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying	Install new controller, fixture, power unit	62,250		
D20-Plumbing	Install new plumbing fixtures		36,050	
	Install additional floor drains		39,150	
	Add water-energy conservation devices		66,555	
D30-HVAC	Replace rooftop DX unit	15,660		
	Relocate RTU and ductwork from stairway	19,575		
	Replace baseboard radiation		40,781	
D40-Fire Protection				
D50-Electrical	Update panel boards, separate emergency power	24,925		
	Upgrade interior, exterior lighting, receptacles		10,148	
	Upgrade fire alarm	9,348		
	Install emergency call button system		5,220	
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Re-stripe ADA spaces, re-locate wheel stops	4,828		
	Install new ADA curb cut	9,135		
	Partial re-pavement, general curb, walk repairs		255,219	
TOTAL		**660,448**	**591,278**	

H. Program/Functional/Space Deficiencies

Increase size of computer lab and first floor sitting room
Provide acoustic treatment for solarium to permit more use
Renovate existing clinic space for use as a health, wellness and fitness center
Relocate conference room in existing clinic space

Pawtucket Department of Public Works

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations	Repair floor heaves and depressions		228,375	
	Adjust slab at egress for smooth transition		9,788	
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Remove, replace, protect metal panels at base	203,907		
	Repair door thresholds		6,525	
	Repair concrete bollards	9,788		
B30-Roofing	Roof not accessible, recommend inspection			
C. Interiors				
C10-Interior Construction	Install code compliant fire separations between uses	42,413		
	Repair damage due to deflection		147,465	
	Create ADA accessible toilet rooms	78,300		
	Abate hazmats	61,988		
	Install code compliant exit signs	9,788		
	Install code compliant door hardware	24,795		
	Provide legal second means of egress	13,050		
	Install egress paint lanes at service bay	6,525		
	Update emergency eyewash	4,568		
	Ceiling replacement	9,788	9,788	
	ADA upgrades, building wide	13,050		
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Water, energy conservation upgrades		40,194	
D30-HVAC	Gas fired infrared heaters at maintenance bay	84,825		
	New condensing boiler		28,710	
	Replace fin tube radiation		32,625	
	New mechanical system at San. And Highway offices		32,625	
D40-Fire Protection	Provide sprinkler service to building	39,150		
	Install sprinkler service in building	204,363		
	Interior cut and patch	90,828		
D50-Electrical	Update panel boards, separate emergency power	136,242		
	New ATS	13,050		
	Improved interior, exterior lighting, receptacles		126,585	
	Upgrade fire alarm	56,767		
	Upgrade security system		22,707	
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Remove and replace pavement, drainage structures	775,671	436,348	
	Repair broken fence	29,363		
TOTAL		**1,908,219**	**1,121,735**	

H. Program/Functional/Space Deficiencies

Increase administrative space by 40%
Provide lobby, reception, waiting area for administration and traffic engineering
Outsource trash removal and renovate area for building maintenance
Provide adequate furnishings and equipment for traffic engineering and day rooms

Police Annex

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Minor exterior repair		6,525	
B30-Roofing	Roof not accessible, inspection recommended			
C. Interiors				
C10-Interior Construction				
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Install water, energy conserving equipment		45,838	
	Pipe insulation, cast iron repair		9,788	
D30-HVAC	Replace first floor AHU		78,300	
D40-Fire Protection				
D50-Electrical	Rewire UPS system		1,305	
	Replace ATS, update panel boards, power separation	15,864		
	Upgrade interior, exterior lighting, receptacles		13,906	
	Upgrade fire alarm panel	8,326		
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Create ADA parking spaces	7,569		
	Install bollards at fuel tank	9,396		
	Repair curbing		9,788	
	Repair chain link fence	3,263		
	New ADA ramp	6,525		
TOTAL		**50,943**	**165,450**	

Slater Park Headquarters

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure				
B30-Roofing				
C. Interiors				
C10-Interior Construction				
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Insulate domestic water piping		1,305	
D30-HVAC	New split AC unit with 4 interior units		15,660	
	Replace baseboard heat		4,894	
D40-Fire Protection				
D50-Electrical	Increase duplex outlets		2,545	
	Replace interior wiring		6,420	
	Add exterior exit lights	2,936		
	Upgrade fire alarm system		9,788	
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Widen road, provide 2 ADA spaces	27,144		
	Signage	430		
	Repair retaining wall crack		3262	
TOTAL		**30,510**	**43,874**	

H. Program/Functional/Space Deficiencies

Provide a lobby and waiting area for three to four people

Provide a workroom

Pawtucket Animal Shelter

	Description of Work	Must	Should	Consider
A. Substructure				
A10-Foundations				
A20-Basement Construction				
B. Shell				
B10-Superstructure				
B20-Exterior Enclosure	Rework roof drainage at entry	3,262		
	repair soffit panel at north side	3,262		
B30-Roofing				
C. Interiors				
C10-Interior Construction	Provide code compliant area separations	13,050		
C20-Stairs				
C30-Interior Finishes				
D. Services				
D10-Conveying				
D20-Plumbing	Re-insulate water piping	3,263		
	Relocate piping at exterior wall	6,525		
	Provide heat in mechanical room	3,263		
D30-HVAC	Modify VAV system, more control, VFD drives	32,625		
	Balance air systems	9,605		
	Replace heat recovery wheels	19,575		
	Repair radiant floor		39,150	
	Upgrade cooling as needed		19,575	
D40-Fire Protection				
D50-Electrical				
E. Equipment & Furnishings				
E10-Equipment				
E20-Furnishings				
F. Special Construction & Demolition				
F10-Special Construction				
F20-Selective Bldg. Demo.				
G. Building Sitework				
	Restripe parking lot		3,263	
	Repair site bollards	6,525		
	Regrade ADA parking space, add sign, wheelstop	4,672		
TOTAL		**105,627**	**61,988**	

H. Program/Functional/Space Deficiencies

Provide an additional, easily maintainable cat room

Provide a cleanup area adjacent to cat isolation and quarantine rooms

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of School:	**PAWTUCKET CITY HALL – POLICE – FIRE STATION #2**
Address:	137 Roosevelt Avenue Pawtucket, Rhode Island 02860
Name of Owner:	City of Pawtucket
Building Use Group:	Mixed, A-3, B, R-2 , S-2
Use Description:	Police Station, Municipal Offices, (Fire Station rated in separate report section)
Years in Service:	79
Year Constructed:	1934 — Designer: O'Malley & Richards
Additions:	Designer:
Existing Drawings:	Original construction only, No existing conditions drawings
Gross Square Feet:	69,416

Constructed almost 80 years ago in 1934 as part of the national effort to combat the economic damage of the Great Depression, the Pawtucket City Hall is symbolic of the city's spirit and solidarity. The site of the 69,000 square foot building is on the banks of the Blackstone River

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

and adjacent to the Slater Mill, an early water powered cotton spinning mill. The City Hall combines Pawtucket city offices, the central fire station and the central police station into a single 4-story structure. The central entry is marked by a slender tower rising 175 feet above street level. This tower is an iconic landmark of the city, and is a void space for its final 110 feet.

Since its completion, there have been numerous changes and renovations. While the central administrative block retains much of the original plan layout, the central police station on the south has been extensively modified. The past 80 years has also seen a revolution in climate control and information technology. The specific engineering sections of this assessment will detail the various efforts to incorporate these changes into the existing building.

The Pawtucket City Hall is listed on the National Register of Historic Structures.

PRIORITY RECOMMENDATIONS

CITY HALL

PROGRAM EVALUATION

1. The planning department is now in a remote facility. Space should be found to allow this department to be housed within City Hall.
2. The building is not accessible. Handicapped parking is at the front, but, handicapped access is at the back. All floors are not accessible from the elevator.

SITE

1. Reconfigure accessible parking spaces in Parking Lot 4 and Parking Lot 1 to be code compliant. Repave Parking Lots 1 & 2 within the next 5 years. Replace or modify adjacent concrete curbing and concrete islands.
2. Rebuild accessible curb ramps that do not meet ADA code.
3. Repair isolated cracked or damage concrete panels in Fire Department driveway within the next 5 years.
4. Repair major crack in Leather Ave. roadway within next 3 years to prevent further pavement deterioration.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

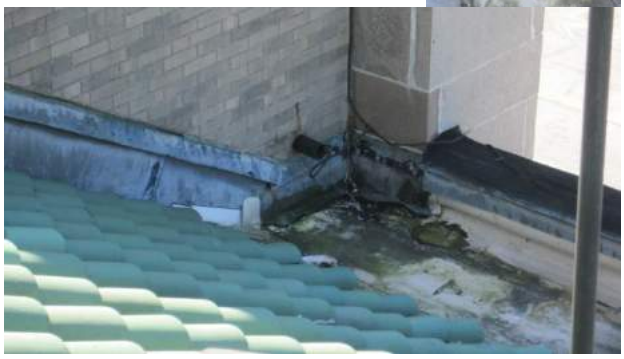
STRUCTURE

1. Replace the boiler room sump pumps that manage the high water table; pumps are antiquated and should be replaced.
2. Replace the entire roof, including all flashing and coping ASAP.
3. As noted in the RGB Report, a quantitative forensic analysis and report should be performed as a follow-up to the RGB report. Some of the problems and issues with the tower are not all that mysterious, and we are confident that a proper and professional follow-up investigation can show what the appropriate and correct long term solutions should be.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

EXTERIOR ENVELOPE

1. Re-point, re-seal, and restore exterior masonry. Replace cast stone parapets as needed. Scrape rust away from steel relieving angles and re-paint.
2. Replace EPDM roofing above police and fire station wings.



INTERIOR FINISHES

1. Re-paint, restore damaged interior finishes after roof replacement.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING

1. Install back water valve to avoid any street water back pressure due to combined sewer / storm drain.
2. Replace all roof drains with dual integral roof drains to avoid any deep pooling on roof levels.
3. Install a new ejector pump control panel with new system level detectors. Controller shall have building automation system and be wired back to building alarm warning systems.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Replace existing steam valves with new tight closing valves with electric/DDC actuators. Corresponding space temperature sensors and controls should be added. The control logic should include time of day schedules and a graphically driven central monitoring station.
2. Institute a steam trap program to keep up their maintenance.
3. Install dedicated outside air units (DOAH) for all spaces and are required for interior offices and conference rooms that have no forced ventilation at present.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

1. Remove all storage from electric service area. Provide enclosure of service equipment for security, maintenance of working clearances and isolation from basement garage activities. Recommend placards at service describing normal and emergency services arrangement serving Police and Fire Stations.
2. Confirm all loads with updated panel board labeling and circuit directories. Service upgrade recommended for any planned improvements or renovations.
3. Municipal complex shares one emergency generator by transfer switch connected to main electric service in City Hall. Recommend isolation of emergency services per occupancy from normal power services by rated building construction to preserve power services in event of catastrophic failure of normal power services.
4. Relocate emergency services out of flood prone locations to increase safety enhance and reliability. Service and distribution equipment appears to be original to building; recommend operation of fused switches and circuit breakers to confirm proper function, examination and possible re-torque of feeder connections.
5. Upgrade of fire alarm system in building is recommended for code compliance, future expandability, and enhanced occupant and property protection. Addition of elevator recall is needed to meet code requirements and prevent trapping of occupants in elevator.

PROVISIONS FOR ACCESSIBILITY

1. Repair elevator
2. Adapt existing service windows to ADA standards.

PAWTUCKET FIRE STATION #2

PROGRAM EVALUATION

1. Headquarters-Provide the following spaces: a large and small conference room, plan review room, an open office space for six fire inspectors, records, one training classroom, three private offices, two open offices, a reception desk and a waiting area for six people.
2. Headquarters-Spaces must be ADA accessible
3. Station #2 Provide smoke extractors and dryers for the apparatus room.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE

See City Hall Recommendations

STRUCTURE

1. Replace exterior loose lintel over window at low roof outside second floor restroom and restore cracked masonry.
2. Repair or replace precast cap stones at the roof's parapet.
3. Re-attach the guy wires supporting the radio tower directly to the steel roof beams or a steel building column.
4. Masonry walls, in general, need a complete review and repair as required. Refer to City Hall section of this report for more information on the exterior walls and roof of the building.
5. Replace the roof membrane, flashing and coping as soon as possible.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

EXTERIOR ENVELOPE

See City Hall Recommendations

INTERIOR FINISHES

1. Install all code required exit signs.
2. Install code compliant fire separation between all mixed-use areas. Close off wall and ceiling openings.
3. Enclose UPS at call center within rated space.
4. Replace plaster ceiling at apparatus bay.
5. Repair open duct in ceiling at sleeping quarters.
6. Provide separate toilet and shower facilities for female Fire Fighters.
7. Replace skylights.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING

See City Hall Recommendations

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Replace the roof top unit (RTU) serving the dorm area and rework the distribution ductwork.
2. Remove the unit heaters from the truck bay and replace with gas fired infrared.
3. Provide DDC controls for the new and existing equipment to remain. Coordinate and tie the new controls into the rest of the City Hall system.
4. Replace the Dispatch AHU's condensing unit. Evaluate condition of the AHU and replace as necessary.

ELECTRICAL

See City Hall Recommendations

PROVISIONS FOR ACCESSIBILITY

See City Hall Recommendations

PAWTUCKET POLICE HEADQUARTERS

PROGRAM EVALUATION

1. Increase available space by 60%.
2. Consolidate evidence storage in one space.
3. Consolidate all investigators in one space. Consider re-purposing existing municipal court space for investigators.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE

See City Hall Recommendations

STRUCTURE

1. Repair exterior wall leak in the detective room. Leak is probably from the roof and channeling water through and down the masonry walls. Replace roof membrane, flashing, and coping as soon as possible.
2. High Density Storage units were noted in records room. Any framed floor supporting these types of storage units, should have a structural analysis performed to verify the capacity of the floor framing beneath the storage units.

EXTERIOR ENVELOPE

See City Hall Recommendations

INTERIOR FINISHES

See City Hall Recommendations

PLUMBING

See City Hall Recommendations

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Improve ventilation and air quality. Lack of space for ducts limits possible solutions. Solutions may vary from area to area. Significant additional investigation required before selecting systems.
2. Provide improved heating and cooling to reduce operating cost and amount of exterior equipment.

ELECTRICAL

See City Hall for Recommendations

PROVISIONS FOR ACCESSIBILITY

1. Provide accessible main entrance to Police Department.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

CITY HALL PROGRAM EVALUATION

Room Size:	Most rooms are undersized for their function. The city clerk's archive room on the 4th floor is an example.
Room Quantity:	The number of rooms is insufficient for the function. The planning department is now in a remote facility. Space should be found to allow this department to be housed within city hall. Traffic engineering has moved to the DPW headquarters and this space is now available for other use (planning).
Room Qualities (Fit-up):	Room fit up of furniture, fixtures and equipment (FF&E) has changed little since the building opened nearly eighty years ago.
External Adjacencies:	The building is not accessible. Handicapped parking is at the front, but, handicapped access is at the back.
Internal Adjacencies:	All floors are not accessible from the elevator.
Remarks:	On "peak days" for public access, to pay taxes or attend council meetings, the public circulation space is inadequate.
Notes:	

POLICE STATION PROGRAM EVALUATION

Room Size:	Most to all the rooms are undersized for their function.
Room Quantity:	The number of rooms is insufficient for the function. Currently, the space is estimated to be 40 to 60% less than required. The police department should be in two locations, headquarters and vehicle storage. Currently it is in five locations city hall, police headquarters, remote evidence container, police annex and vehicle storage. Currently, evidence is stored in four locations, three within the building and one in a remote container.
Room Qualities (Fit-up):	Most to all the rooms are not fit up sufficiently to meet their function.
External Adjacencies:	The youth borough, detectives, special squad and narcotics divisions (all investigators) should be adjacent one another. Currently the special squad and youth borough are in the basement.
Internal Adjacencies:	No issues discussed.
Remarks:	The former district court space, which now serves as the municipal court, is only used 4 to 5 hours a week and could be made available for other use. Repurposing this space will allow all the investigators to be on one space and floor. Circulation to and from the municipal court on the second floor is not sufficient.
Notes:	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

FIRE STATION #2 PROGRAM EVALUATION

Room Size:	#2, Most rooms are undersized for their function. #2, The recreation room is too small. HQ, there is a need for the following spaces: a large and small conference room, plan review room, an open office space for six fire inspectors, records, one training classroom, three private offices, two open offices, a reception desk and a waiting area for six people.
Room Quantity:	#2, Battalion chiefs do not have private bathrooms.
Room Qualities (Fit-up):	#2, The apparatus room does not have smoke extractors or dryers.
External Adjacencies:	HQ, The department headquarters needs to be adjacent to a fire station.
Internal Adjacencies:	#2, The TV room should be remote from the sleeping quarters. #2, The kitchen should be remote from the apparatus room.
Remarks:	HQ, The second floor headquarters' space is not accessible. HQ, When circulating to the headquarters space over station #2, the public is intimidated.
Notes:	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	3.50 acres (includes parking lots across the street)
Lot Area:	2.08 acres
Topography:	Overall site slopes west to east towards river
Wetlands:	Site abuts Seekonk River

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of Info:	Date Installed	Conditions
Utilities –Sanitary:	Ties into Roosevelt Ave system (size unknown)	N/A	N/A	N/A	N/A
Water:	Service from Roosevelt Ave main (4"?)	Copper	N/A	N/A	N/A
Electricity:	Underground (size unknown)	N/A	Site Visit	N/A	N/A
Gas:	6"	Steel?	N/A	N/A	N/A
Oil Tank:	Unknown	N/A	N/A	N/A	N/A
Storm Water Management:					
Parking Lot 1 West	Overland to catch basins, which connect into municipal system.		Site Visit	N/A	N/A
Parking Lot 2 West Police	Overland to catch basins, which connect into municipal system. Flows overland to inlet at SW corner of site and discharges to river.		Site Visit	N/A	N/A
Parking Lot 3 South Police	South portion flows overland to inlet at SW corner of site and discharges to river.		Site Visit	N/A	N/A
Parking Lot 4 East	North portion flows overland wall inlet at NW corner of site and discharges to river.		Site Visit	N/A	N/A
Service Areas:	Rear of building (size not defined)	Bit. Pavement	Site Visit	N/A	
Parking Lot 1 West	44,370 SF	Bit. Pavement	Site Visit / Aerial	N/A	4
Parking Lot 2 West Police:	17,400 SF	Bit. Pavement	Site Visit / Aerial	N/A	4
Parking Lot 3 South Police:	3,900 SF	Bit. Pavement	Site Visit / Aerial	N/A	8
Parking Lot 4 East:	21,800 SF	Bit. Pavement	Site Visit / Aerial	N/A	7
Driveways: Fire Department Leather Ave	 3,050 SF 5,800 SF (24'W x 243'L)	 Concrete Bit. Pavement	 Site Visit / Aerial Site Visit / Aerial	 N/A N/A	 8 7

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type:	Source	Date Installed	Conditions
Site Lighting:				
Parking Lots 1 & 2	Pole Mounted, twin fixtures	Site Visit	Fixtures appear new	8
Roosevelt Ave Sidewalks	Ornamental street post Lights	Site Visit	N/A	8
Parking Lot 3	Building Mounted Fixture (1)	Site Visit	N/A	See electrical
Parking Lot 4	Building Mounted Fixtures	Site Visit	N/A	See electrical
Fire Hydrant:	3 nearby hydrants	Site Visit/Aerial	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking Lot 1:	120	Bit. Pavement	N/A	4
Parking Lot 2:	58	Bit. Pavement	N/A	4
Parking Lot 3:	12	Bit. Pavement	N/A	8
Parking Lot 4:	59	Bit. Pavement	N/A	7
Public Access Area:	See walkways and comments	Brick, Concrete	N/A	
Vehicle Storage	Garage bays at Fire station (front and rear side of building) and behind Police Headquarters	See Arch.	N/A	See Arch.
Loading & Service	Not defined	Bit. Pavement	N/A	7
Signage:	Adequate	Varies Alum. Sign w/ Steel Post (typ.)	N/A	8
Trash Management Area:	None observed	N/A	N/A	N/A

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	
Curb Cuts:	Varies (3'-4' typ.)	Brick & Concrete	Varies
Walkways:	Along Roosevelt Ave: 8'-9' City Hall entrance: 27' Police HQ entrance: 6' Leather Ave: 6'	Brick Brick & Concrete Concrete Concrete	8 4 (Repairs) 4 (Repairs) 4 (Repairs)
Ramps:	N/A	N/A	N/A
Parking:	9' X 18' TYP.	Bit. Pavement	Varies (see above and comments)

SITE NOTES

1. Portions of the eastern and northern sections of the building, and portions of the eastern parking lot are located within FEMA Flood Zone AE, which is subject to flooding by the 1% annual chance flood (or 100-year flood). Base flood elevations within this area are between elevation 33' and elevation 34'. A majority of the remaining portion of the building, the south parking lot, the remainder of the east parking lot, and some walkways and plazas in front of the building are located within FEMA Flood Zone X. Zone X areas are subject to the 0.2% annual chance flood (or 500-year flood), or is subject to average flood depths of less than 1 foot during a 100-year flood event. The DPW has noted that flooding problems have existed in recent years.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

2. A portion of river wall at northeast corner of the site is leaning/tilted inward toward the building. Sand was observed piled up against the river wall in this area, potentially to prevent further movement or failure of wall, particularly when river waters rise up against the wall.
3. Other cracks were observed on the river wall.
4. Drainage System on the east side of the building appears inadequate for the amount of impervious area contributing to it.
5. Curb inlet in southeast corner of the site is falling apart.
6. Portions of the concrete curb on the east side of Parking Lot 4 (in front of river wall) have broken away or are missing.
7. 4 of the 6 accessible parking spaces provided in Lot 1 and Lot 4 do not meet ADA requirements. Based on total parking spaces for the sit (249) ADA regulations require seven (7) accessible parking spaces for the site, one of which needs to be van accessible.
8. No accessible entrance exists for the front City Hall entrance, nor for the front Police headquarters entrance. Accessible entrances exist for both are at the rear (east side) of the building.
9. Fire department entrance is not accessible.
10. Bituminous pavement in Parking Lots 1 & 2 contains significant fatigue cracking, surface deterioration, and rutting adjacent to most curbing.
11. Portions of concrete curbing around parking lots 1 & 2 show are broken, cracked, or deteriorating. A number of the concrete interior curb islands/walks within these lots are cracked, broken, settled, or heaved and present tripping hazards to pedestrians.
12. Preemptive traffic signals observed for Fire Station calls
13. Accessible curb ramp at sidewalk in front of City Hall main entrance does not meet ADA code due to brick settlement and subsequent ridge at granite curb.
14. Cracks and surface deterioration in concrete plaza/walkway in front of City Hall main entrance and in front of Police Headquarters main entrance creates potential tripping hazards.
15. Concrete stairs south of Police Headquarters front entrance contains significant cracks at edge of treads from rebar deterioration near surface of concrete
16. Wood retaining wall on west side of Parking Lot 1 is in poor condition due to missing/broken logs and some rotting logs.
17. Concrete retaining walls on west side of Parking Lot 1 contains some cracking and surface deterioration, as well as rust staining. Integrity of walls should be inspected twice per year.
18. A portion of heaved brick sidewalk and concrete sidewalk was observed on sidewalk just north of fire station driveway due to tree roots. This area presents a tripping hazard and is not ADA compliant.
19. The portion of concrete sidewalk on the north side of Leather Ave just prior to Parking Lot 3 contains several significant cracks and breaks and is a tripping hazard. This is the only sidewalk that leads to the rear of the building, but it is not ADA compliant.
20. Site lighting on the east side of Parking Lot 4 seems inadequate. The only site lights in the vicinity are building mounted fixtures at building entrances on the west side of the lot.
21. Pre-emption traffic signal in front of fire station appears to be operational. Traffic signals in front of City Hall also appear to be operation and in good condition.

Condition Key Criteria:
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5-7 –Items To Be Replaced Within 5 Years
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N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

5. Rebuild curb inlet in southeast corner of the Parking Lot 4.
6. Replace broken and missing sections of concrete curb on east side of Parking Lot 4.
7. Reconfigure accessible parking spaces in Parking Lot 4 and Parking Lot 1to be code compliant. Since front of building is currently not accessible, considerations should be given to shifting more of the accessible parking spaces from Parking Lot 1 to Parking Lot 4 at the rear of the building.
8. Repave Parking Lots 1 & 2 within the next 5 years. Replace or modify adjacent concrete curbing and concrete islands.
9. Rebuild accessible curb ramps that do not meet ADA code.
10. Repair isolated cracked or damage concrete panels in Fire Department driveway within the next 5 years.
11. Repair cracks and deteriorated portions of concrete plaza/walkway in front of City Hall main entrance and Police Headquarters main entrance.
12. Repair concrete stairs south of Police Headquarters front entrance.
13. Repair/replace heaved brick sidewalk and concrete sidewalk just north of Fire Station driveway (approx. 15 SF).
14. Replace portion of concrete sidewalk that is severely cracked and deteriorated along Leather Ave.
15. Repair major crack in Leather Ave. roadway within next 3 years to prevent further pavement deterioration.
16. Supplement site lighting in Parking Lot 3 & 4 as needed

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N/A – Not applicable/Not available
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BUILDING SYSTEMS & ASSEMBLIES OF ORIGINAL BUILDINGS

CITY HALL Structure	Material	Remarks	Conditions
Foundation System:	Reinforced concrete foundation walls at the exterior of the building and interior reinforced concrete spread footings at the interior column locations. Original drawings indicate hardpan or ledge as the bearing material under the footings.	Many leaks in foundation wall especially in the Boiler room. Other areas of the basement are also subject to flooding.	8
Vertical Support Systems:	Steel Frame	We did not have close-up access to the outside edges of the exterior steel at the tower; However, it has been reported that there exists extensive rust in the spandrel beams and columns... Refer to RGB investigative report of 20 March 2012.	8 -Main Building Tower frame 2 - 4.
Floor Framing System:	One way reinforced concrete slab supported on steel beams and girders.		8
Ground:	Slab-on-Grade		8
Upper Floors:	One way reinforced concrete slab supported on steel beams and girders.		8
Roof Framing System:	Precast concrete panels supported on "C"-channel purlins and wide flange beams. Precast planks occur at the sloped gable roof and on the flat roof sections as well.	Some of the Precast Planks above the crawl space in the Recorder of Deeds Room have failed. Some buckling of the lowest plank sections at the bottom of the gable roof is evident.	8
Lateral Force Resisting System:	The lateral force resisting system for the tower section of the building is composed of diagonal angle X-Bracing on all four sides above the attic level, and riveted moment connections from the attic floor down to the basement. Could not identify lateral system for the remainder of the building. Exterior and interior masonry walls offer some but limited lateral resistance.	According to previous studies of the tower some of the exterior beams have extensive corrosion.	8

STRUCTURE NOTES

1. With the river adjacent to the building it was reported that when the Blackstone River crests, it inundates the rear parking lot against the building and the water level rises several feet above grade and above the base of the windows. In order to prevent severe flooding of the basement level, steel plates that are stored in the basement are brought out and are bolted to the walls when floods are forecasted. The plates are removed and stored back in the basement when the water subsides. This process is not the most effective way to handle the flooding.
2. The leaks in the foundation walls are most likely due to the high water table around the building and an inadequate perimeter drainage system and an inadequate waterproofing system for the exterior foundation walls. There is a large sump pit in the boiler room that

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manages the high water table; however, the pumps are antiquated and should be replaced.

3. There are many reported and visible signs of water infiltration on the upper levels of the building. A major source of the leaks is from the lack of positive drainage, (roof slope to drains), at the low roofs particularly around the tower. There is evidence of deteriorated roof membranes and flashings throughout the roof. The terra cotta roofing tiles on the sloped roof areas are not in the best condition. Many of the tiles appear loose, and are split, chipped, or spalled. There are even several tiles with missing sections. The front of the building has the terra cotta roofing tiles on the sloped roof. The rear of the building has standard asphalt shingle instead of the tiles. The entire roof, including all flashing and copping needs to be replaced ASAP.
4. It appears that the precast planks at the base of the sloped roof appear to be bowing. This may be caused by accumulated weight or force at the base of the sloped roof caused by the cumulative weak axis bending and deflection of the roof "C" channel purlins supporting the planks. Not necessarily an issue at this time.
5. A few of the precast roof plank panels, at the slopped roof areas, have completely failed and are essentially completely cracked in half. The failure of the planks appears to have been created by a blunt force. This could perhaps been created by a falling heavy object from above, such as a large piece of masonry. These broken planks were observed in the crawl spaces adjacent to the Recorder of Deeds areas on the Attic floor level. The broken precast panels should be replaced during or before the next re-roofing.
6. The walls of the main building appear to have water infiltration as well. However, it is unclear if the source of the infiltration is from the roof or actually through the walls. It seems to make sense for the main building that the water infiltration is due to poor flashing and poor flashing roof details as well as an aged membrane, and as mentioned inadequate positive drainage.
7. The water infiltration at the tower is due to a number of sources. The cause and resolution of the infiltration has apparently been a point of constant investigation and frustration over the years. A major restoration was performed in 1974, with apparent marginal results. Another renovation was performed in 2005 with again marginal results. A new study was commissioned by the City and was performed RGB Assoc. and Odeh Engineers Inc. in 2012. We agree In essence with RGB's and Odeh Engineers Inc. findings, in that the tower's original construction has some flawed detailing that allows water infiltration, to the detriment of the structure. Our reasons for this are based on the following facts:
   a) The building was less than 40 years old when the tower needed its first major repair. For a properly designed and constructed building that should not have been the case.
   b) All previous attempts to fix the problem have failed to provide any permanent resolution to the moisture infiltration problems.
   c) The problems are worsening with time.
8. The RGB report recommends three options to alleviate the moisture problem;
   a) Tear down the tower,
   b) Provide a Rain-Screen skin over the existing masonry.
   c) Rebuild the masonry walls. It is important to understand that any long term solution of the moisture infiltration problem will require removing and replacing all of the towers masonry. The" locked-in" nature of the masonry to the steel frame creates a host of problems for the masonry and the supporting steel frame, that cannot be resolved by re-pointing or by simply applying a sealant over the masonry.
9. Thus, as noted in the RGB Report, a quantitative forensic analysis and report should be performed as a follow-up to the RGB report. Some of the problems and issues with the tower are not all that mysterious, and we are confident that a proper and professional follow-up investigation can show what the appropriate and correct long term solutions should be.

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N/A – Not applicable/Not available
M – Missing

POLICE STATION Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls and concrete block foundation walls.	Cracking and leaking	8
Vertical Support Systems:	Solid brick masonry walls at exterior are non load bearing. Steel columns support steel frame of the building.	Some cracking and loss of mortar in head and bead joints.	8
Floor Framing System:	Steel beams with one way concrete slabs supported on steel columns throughout.		9
Ground:	Slab-on-grade.	Some cracking in slabs, however, they are non-structural, and do not affect the slab's performance.	8
Upper Floors:	Steel beams with one way concrete slabs.	No issues noted building frame appears to be sound.	9
Roof Framing System:	Steel beams with channel shaped purlins supporting precast concrete roof plank panels.	Some areas of the roof are leaking. Roof membrane, flashing and coping, is in fair to poor condition and is in need of replacement. See note No. 3 below.	5
Lateral Force Resisting System:	No conventional lateral force resisting system identified. Limited Lateral resistance provided by interior and exterior unreinforced brick masonry walls.		8

STRUCTURE NOTES

1. Building appears to be in sound condition.
2. See City Hall comments for more info on the contiguous police, fire, and City Hall Sections of the building.
3. Exterior wall especially in the detective room is leaking. Leak is most likely from the roof and channeling water through and down the masonry walls. Roof membrane, flashing, and coping, is in need of replacement as soon as possible. Short of replacement, repairs should be done to fix the sources of the leaks if they can be identified.
4. Some High Density Storage units were noted in records room. Any framed floor supporting these types of storage units, should have a structural analysis performed to verify the capacity of the floor framing beneath the storage units.
5. Newer windows are all double glazed. A couple of the window glazing panels appeared to have failed, as moisture was noted between the individual glazing panels.

FIRE STATION #2 Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls		8
Vertical Support Systems:	Exterior and interior masonry walls are non-load bearing. Steel frame of the building is supported on interior and exterior steel columns.	This section of the building is In average condition for the age of the building. Foundation walls below grade leaks severely when water table is high.	8

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N/A – Not applicable/Not available
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FIRE STATION #2 Structure	Material	Remarks	Conditions
Floor Framing System:	First floor under apparatus room is not original to the building. The floor has been replaced recently, with new wide flange steel beams, girders, and columns supporting a one way composite slab and metal deck system. The remaining floors of the building are framed with steel beams and a one way reinforced concrete slab system.	New floor framing under apparatus room is fireproofed with sprayed fireproofing on steel beams and deck.	9
Ground:	Basement floor areas are conventional slab on grade.		8
Upper Floors:	Steel beams and girders with one way cast in placed concrete slab, between beams at the remainder of the building.		8
Roof Framing System:	Longspan joists over the apparatus room. Precast concrete plank on C-Channel purlins on wide flange steel beams at the balance of the roof.	Roof membrane in fair to poor condition. See note No. 5 below.	8
Lateral Force Resisting System:	No verifiable lateral force resisting system identified. Limited lateral resistance is provided by the un-reinforced brick masonry walls.		8

STRUCTURE NOTES

1. Exterior loose lintel over window at low roof outside second floor restroom has extensive rusting and has cracked the masonry up from the corners of the windows.
2. A fair amount of hairline cracking and crazing in the precast cap stones at the roof's parapet. Loss of mortar in much of the masonry joints is prevalent.
3. The guy wires supporting the radio tower are bolted through the Parapet wall. This is not an ideal condition, as the parapet has limited lateral force resistance. Preferably, the guy wires should be attached directly to the steel roof beams or a steel building column.
4. Masonry walls, in general, need a complete review and repair as required. Refer to City Hall section of this report for more information on the exterior walls and roof of the building.
5. The roof membrane is in poor condition with areas of inadequate pitch leading to large areas of ponding. The roof membrane, flashing and coping is in need of replacement as soon as possible. Short of full replacement, repairs should be done to fix the sources of the leaks if they can be identified.

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CITY HALL & POLICE STATION Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick, cast stone	See Below	3
Exterior Trim/Fascia:	Cast stone	See Below	3
Sloped Roof Assembly:	Glazed terra cotta roof tile on precast decking, west side Asphalt shingles on precast decking, east side	Decking has collapsed in several locations, Tiles are cracked, broken	1 5
Flat Roof Assembly:	Sarnafil at high roof above slopes EPDM at lower flat roofs		6 2
Windows:	Double-hung, replacement, aluminum		8
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:	Aluminum, glazed Overhead doors, painted steel		4 4
Interior:	WD, HM frames		4
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Exterior skin consists of brick and cast stone with multiple joints and breaks of plane. Mortar is cracked, has failed, or been washed away in many locations creating multiple paths for water infiltration. In addition, penetrations for multiple exterior dx units could provide paths for water to interior.
2. There are weeds growing in the wall on the north side of the central tower.
3. Cast stone parapets should be inspected and joints re-sealed. In places it appears as if reinforcing steel within parapet stones may be rusting.
4. EPDM roofing above police and fire station wings appears to be well beyond its useful life and should be replaced.
5. Wide gutter at base of sloping roof must be replaced and re-flashed.
6. Green glazed terra cotta roof tile at west sloping roof is cracked, broken, and tiles are missing. There are many opportunities for water infiltration.
7. The exterior envelope appears to have been compromised in so many locations that chronic leaks are inevitable.
8. Ladder in tower requires an OSHA approved safety cage.
9. Relieving angles at windows are rusting.
10. Lower level on east side floods regularly. City fits metal plates into surface-mounted tracks to keep water out. Plates stored in City Hall basement.

FIRE STATION #2 Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick, cast stone	See Below	8
Exterior Trim/Fascia:	Cast Stone	See Below	3
Sloped Roof Assembly:			
Flat Roof Assembly:	Flat roofs constructed by user		1
Windows:	Double-hung, replacement, aluminum	Approx. 8 years old	8
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			

Condition Key Criteria:
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FIRE STATION #2 Exterior Envelope	Material	Remarks	Conditions
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	1

INTERIOR NOTES

BASEMENT LEVEL

1. No Exit Sign above Stair door.
2. No fire separation from Garage and Storage Areas (S-2) from Exercise area.
3. Wood trim around replacement windows need to be repaired at various locations.
4. Closet is located under stair, a code violation. Stairways must not have closets that open directly into stairwell.
5. Door hardware at Stairwell doors need to be replaced XXXXXXXXXXXXXXX
6. Drop-down ceiling is old and in need of replacement.
7. Exercise room needs general cleaning and painting of all surfaces.
8. Exercise room has various wall and ceiling openings that need to be closed off.
9. Evidence of ceiling leaks at Exercise room.
10. Exterior door by Garage doors need to have new hardware, removal of bolt lock and upgrade exit sign.
11. Remove various stored items from in front of electrical panels.
12. Various electrical boxes missing cover plate. Wires visible.

FIRST FLOOR LEVEL

1. Vinyl Asbestos Tile (VAT) at stair landing.
2. Stair door being held open with wood peg. Recommend adding a magnetic door holder.
3. Stair at lower landing needs new hardware. Recommend panic Hardware.
4. Recommend updating with new Firemen Metal Lockers.
5. Water leaks visible at drop-down ceiling at call center.
6. UPS at call center needs to be enclosed within rated space.
7. Plumbing fixtures have various piping materials.
8. Apparatus bay has numerous locations at plaster ceiling where plywood has been used to cover areas where plaster has fallen. Recommend replacing entire plaster ceiling with new.
9. Some wall tile missing in Apparatus Bay.
10. Window from Office to Apparatus Bay needs to be rated.
11. Exterior door at Apparatus Bay missing Exit sign.
12. Wood supports used for exhaust duct at ceiling.
13. Concrete thresholds and main Garage openings are cracked and broken.
14. Mixed-Use areas have no Fire Separation
15. Doors/Windows from Apparatus space are not Fire Rated, Typ.

SECOND FLOOR LEVEL

1. Stair at upper landing has a window that needs a guard at 18” AFF. Glazing should be tempered.
2. Skylight has exposed wood framing.
3. Skylight has large opening to space between ceiling and roof.
4. Sleeping quarters have open duct at ceiling.
5. VAT tile needs to be removed.

Condition Key Criteria:
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N/A – Not applicable/Not available
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6. Bathroom needs new ceiling and light fixtures. High ceiling is original plaster. Inspect for leaks hidden by drop-down ceiling.
7. Numerous air conditioning units in all bedroom windows.
8. Sleeping quarters lack storage closets.
9. Plaster damaged behind cast iron heater.
10. Ceiling tile leaks visible.
11. Communal bathroom missing door at toilet partition.
12. No separate toilet and shower facilities for female Fire Fighters.
13. Skylights need to be replaced.
14. Plaster ceiling in Office has signs of water leaks.

EXTERIOR ENVELOPE NOTES

BASEMENT AREA

1. Areaway needs cleaning and removable of overgrowth.
2. Brick needs re-pointing at various locations throughout building. Multiple brick locations have long cracks.
3. Missing exterior light at Basement Garage door.

SECOND FLOOR ROOF

1. Substantial horizontal crack at Office window steel lintel.

ROOF

1. All caulking at precast units need to be replaced.
2. L.C.C. flashing and roof membrane flashing (newer) not properly attached, numerous holes on side of L.C.C.
3. Roof membrane needs to be replaced in the near future.
4. Precast roof parapet caps look like they're failing. Multiple cracks and stones not level. Potential leaking at these joints.

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5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
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M – Missing

POLICE STATION Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	PLAS/GWB	CPT/VCT	ACT	4	4	4	Heavily used
Lobby:	PLAS	QT	ACT	4	4	4	
Corridors:	PLAS/GWB	CPT/VCT	ACT	3	3	3	
Stairs:	PLAS	RBR	PLAS	3	3	3	Rails low/NC
Toilets:	PLAS/CT	CT	ACT	3	3	3	
Service/Mechanical:	PLAS/CMU	CONC	N/A	3	5	5	
Dispatch	PLAS/GWB	CPT	ACT	4	4	3	
Detention (M,F,Juvenile)	CMU	CONC	GWB	6	6	6	Steel doors
Evidence Storage	PLAS/GWB	VCT	ACT	4	4	4	
Detectives	PLAS/GWB	CPT	ACT	4	2	4	
Sallyport	PLAS/CMU	CONC	PLAS	4	4	4	
Sergeant's Locker Room	PLAS/GWB	VCT	ACT	4	4	3	
Server Room	PLAS/GWB	RBR	ACT	5	5	3	
Courtroom	WD	CPT/VCT	ACT	6	5	6	
Judge	WD/PLAS	CPT	ACT	6	5	6	
Prosecution	WD/PLAS	CPT	ACT	5	5	5	

CITY HALL Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	PLAS/GWB	CPT/VCT	ACT	5	4	5	
Lobby:	PLAS	Stone	PLAS	6	6	4	
Corridors:	PLAS	Stone	ACT	6	6	6	
Stairs:	PLAS	STONE	PLAS	6	6	6	Rails low/NC
Toilets:	CT/PLAS	CT	PLAS	4	4	5	Varies, 2-5
Service/Mechanical:	CMU	CONC	N/A	5	5		
City Council Chambers	PLAS/WD	CPT	PLAS	5	4	5	Some leaks
City Clerk	PLAS/GWB	CPT	ACT	6	4	5	Some leaks
Public Works	PLAS/GWB	VCT	PLAS	6	6	6	
City Treasurer	PLAS/GWB	CPT	ACT	5	4	5	
Conference Rooms	PLAS/WD	CPT	PLAS	4	4	4	Tired
Vital Records	PLAS	CPT	PLAS	3	5	4	Chronic leaks
Upper Lobby (Attic Level)	PLAS	STONE	PLAS	4	5	2	Chronic leaks

INTERIOR FINISHES NOTES - POLICE STATION

1. Suspended ceiling grid used to support IT network cables throughout. Low floor to ceiling heights.
2. Surface-mounted electrical conduit is typical.
3. No ventilation at interior spaces.
4. Space appears to be very crowded.
5. Chronic roof leak at stairway located at joint between police station and central city hall.

INTERIOR FINISHES NOTES - CITY HALL

1. Suspended ceiling grid used to support IT network cables throughout. Low floor to ceiling heights.
2. Chronic leaks at multiple locations around building.

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8-9 – Items Requiring Regular Maintenance
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M – Missing

FIRE STATION #2 Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	PLAS/GWB	*VAT	ACT/PLAS	4	1	4/3	
Lobby:							
Corridors:		*VAT			1		
Stairs:	PLAS	CONC	PLAS	8	8	8	
Toilets:	PLAS/CT	VCT/CT	ACT	6/4	2/8	7	
Service/Mechanical:							
Weight Room:	PLAS	CONC	ACT	3	5	1	
Apparatus Bay:	PLAS/CT	CONC	PLAS	5	8	1	
Sleeping Quarters:	PLAS	*VAT	ACT	7	1	3	
Kitchen:	PLAS/CT	CT	PLAS/GWB	6	7	9	
Call Center:	PLAS	VCT	ACT	7	7	8	

INTERIOR FINISHES NOTES

1. Lockers at Apparatus bay need to be secured to wall.
2. Wall damage at Cast Iron Heaters

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

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PLUMBING SYSTEM – CITY HALL

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	4”	2”	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to have been replaced within 5 years.	
Gas:	6”	6”	Yes	Low Pressure	Black Steel	NGRID	M	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type “L” / 8	None / M	Backflow preventer present
Domestic Hot Water:	Copper Type “L” / 8	None / M	Current system temperature at 140 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system.
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend back water valve to avoid any street water back pressure do to combined sewer / storm drain. Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the systems if present at the street.
Gas:	Black steel / 8	None Required / 9	With internal hermetically sealed Spencer gas booster package.
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Boiler to storage tank packaged system / Natural Gas (Low Pressure)	Boiler 10+ years. Storage tank appears newer?		Dom. Water Boiler appears to be 10 plus years old. A.O. Smith Mod. No. TJV-120M Indirect 119 gallon storage tank is fully insulated to determine when it was installed. Appears to be newer then boiler. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to all three buildings currently require tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F. Storage tank fully insulated with 2” fiberglass.
Sanitary Ejector Pump:	N/A			

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Storm Ejector Pump:	Duplex Ejector system.	System housing pumps is as old as original building	Informed pumps were replaced a few years back.	Currently without control panel and high alarm detection. Not addressable to front offices, if system goes into high alarm or system fails. Recommend providing a new ejector pump control panel with new system level detectors. Controller to have building automation system to be wired back to building alarm warning systems.
Domestic Water Booster Pump:	N/A			None present
Interior Kitchen Grease Trap:	N/A			None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor or wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	3	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Floor and wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	3	Urinal full height wall types are no longer code compliant under new construction threshold.
Lavatory:	Wall hung & countertop types	No / No	None	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall hung / Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	3	Several with threaded connections require integral vacuum breakers
Showers:	N/A				No showers present

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in rest rooms. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout all three buildings (Fire Department, Police Station and City Hall).
2. Priority 2: Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system. Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.
3. Priority 3: Currently dousing of HVAC roof top equipment by means of domestic water irrigation is not code compliant or energy efficient. At a minimum provide a cross contamination by means of a backflow “RPZ” preventer.
4. Priority 4: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
5. Priority 5: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
6. Priority 6: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets.
7. Preventative maintenance: Observed cast iron lateral pipe repair with sheet metal and stainless steel band straps. Recommend replacing in full with complete one piece piping.
8. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.
9. Preventative maintenance: Recommend DWH boiler is checked and verified of its condition by a technician to determine efficiency and life span.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM – POLICE STATION

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water:	N/A	N/A	N/A	N/A	N/A	City Hall	Refer to City Hall Assessment	Fed from City Hall central mechanical plant
Gas:	N/A	N/A	N/A	N/A	N/A	City Hall	Refer to City Hall Assessment	Fed from City Hall central mechanical plant

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 140 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system.
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend back water valve to avoid any street water back pressure do to combined sewer / storm drain. Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the systems if present at the street.
Gas:	Black steel / 8	None Required / 9	Fed from City Hall Central Mechanical Plant
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	N/A / Natural Gas (Low Pressure)	N/A	N/A	Domestic hot water fed from City Hall Central Mechanical Plant. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to all three buildings currently require tempering down to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	None present
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor or wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments determining which shall be ADA	3	Some fixtures appear to be original and may be above the 1.6 GPF code maximum requirements.
Urinal:	Floor and wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments determining which shall be ADA.	3	Urinal full height wall types are no longer code compliant under new construction threshold.
Lavatory:	Wall hung & countertop types	No / No	Refer to architectural comments determining which shall be ADA	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall hung / Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	1	Several with threaded connections require integral vacuum breakers
Showers:	N/A				No showers present

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	None present in rest rooms with three or more plumbing fixtures. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within garage area. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout all three buildings (Fire Department, Police Station and City Hall).

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

2. Priority 2: Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system. Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.
3. Priority 3: Recommend replacing all public faucets with new sensor or metered type low flow faucets or low flow type with wing blade ADA compliant handles.
4. Priority 4: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
5. Priority 5: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets.
6. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM – FIRE STATION

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water:	N/A	N/A	N/A	N/A	N/A	City Hall	Refer to City Hall Assessment	Fed from City Hall central mechanical plant
Gas:	N/A	N/A	N/A	N/A	N/A	City Hall	Refer to City Hall Assessment	Fed from City Hall central mechanical plant

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	Some fiberglass/ M	
Domestic Hot Water:	Copper Type "L" / 8	Some fiberglass/ M	Current system temperature at 140 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system.
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend back water valve to avoid any street water back pressure do to combined sewer / storm drain. Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the systems if present at the street.
Gas:	Black steel / 8	None Required / 9	Fed from City Hall Central Mechanical Plant
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	N/A / Natural Gas (Low Pressure)	N/A	N/A	Domestic hot water fed from City Hall Central Mechanical Plant. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to all three buildings currently require tempering down to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	None present
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor or wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments determining which shall be ADA	3	Some fixtures appear to be original and may be above the 1.6 GPF code maximum requirements.
Urinal:	Floor and wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments determining which shall be ADA.	3	Urinal full height wall types are no longer code compliant under new construction threshold.
Lavatory:	Wall hung & countertop types	No / No	Refer to architectural comments determining which shall be ADA	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall hung / Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	1	Several with threaded connections require integral vacuum breakers
Showers:	N/A				No showers present

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	None present in rest rooms with three or more plumbing fixtures. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within garage area. Portable emergency eye wall hung to comply.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout all three buildings (Fire Department, Police Station and City Hall).
2. Priority 2: Presently a temporary water dosing of roof top unit is being fed from water hose and shall have a backflow preventer immediately as to avoid any cross contamination to water source.
3. Priority 3: Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system. Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.
4. Priority 4: Recommend replacing all public faucets with new sensor or metered type low flow faucets or low flow type with wing blade ADA compliant handles.
5. Priority 5: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
6. Priority 6: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets.
7. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM – CITY HALL

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Typical Classrooms	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Kitchen:	NA	NA	NA	NA	NA
Stairs:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

AUTOMATIC FIRE SUPPRESSION SYSTEM – POLICE STATION

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Typical Classrooms	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Kitchen:	NA	NA	NA	NA	NA
Stairs:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

AUTOMATIC FIRE SUPPRESSION SYSTEM – FIRE STATION #2

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Typical Classrooms	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Kitchen:	NA	NA	NA	NA	NA
Stairs:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 –Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS – CITY HALL

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	LP Steam CI sectional	Weil McClain	Circa 2005	8 See Comment 1
Cooling Equipment #1:	Electric	Ductless splits	Samsung, and others	Varies	3 to 5 See Comment 2
Cooling Equipment #2:	Electric	RTU DX	Dunham Bush	<5 years	8 See Comment 3
Cooling Equipment #3:	Electric	AHU/Split (3rd Flr. Records)	Unknown	20+ years	2 See comment 4

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution	Varies	CI Radiators	Unknown	Steam	original	2 to 4
Heating Distribution 2:	Varies	Cabinet Unit Heaters	Unknown	steam	1985±	3 to 6
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment:		Operable Windows				
		Limited Areas RTUs				
		No Ventilation	Several Interior spaces			See comment 5

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The boilers are less than ten years old and were converted to natural Gas in 2012. The Condensate receiver and feed system in the Boiler room appear to be in good condition.
2. Most of the office areas are cooled with one or more ductless split DX systems. The condensing units in the front of the building are partially concealed by a shrubbery hedge.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

3. The Council Chambers, Clerk's office and Court Room are served by dedicated RTUs. The council chambers unit has a 245 MBH gas furnace and 2 approximately 3 ton DX compressors. The ductwork distribution is 18" diameter flex.
   a) The RTUs were all off at the time of the visit. Even though the council chamber and court room were vacant there was staleness to the rooms that would benefit from at least periodic purging of the room air.
4. The 3rd floor Records area is conditioned by an old AHU under the eaves.
   b) Supply duct 20x20 approximately 3000 CFM.
   c) Return air ducted back from opposite eave in a 24x60 soffit.
   d) No OA connection observed
   e) Floor of eave littered w/ crushed air cell insulation.
5. Several interior spaces such as the City council's conference room have no mechanical ventilation at all.

RECOMMENDATIONS

2. Temperature control is a major issue. Steam valves should be replaced with new tight closing valves with electric/DDC actuators. Corresponding space temperature sensors and controls should be added. The control logic should include time of day schedules and a graphically driven central monitoring station.
3. A continuing steam trap program to keep up their maintenance should be considered.
4. Most of the major offices have large operable windows which strictly speaking conform to the ventilation code but with the addition of mechanical cooling these windows are kept closed and there are air quality issues. Minimum sized dedicated outside air units (DOAH) should be considered for all spaces and are required for interior offices and conference rooms that have no forced ventilation at present.
   a) The steam heat often runs wild overheating many spaces and the windows are more likely to be found open in the winter than the summer. With improved temperature control there may be a negative side effect on the fresh air without the addition of the DOAHs.
5. The use of variable refrigerant cooling systems where multiple indoor air conditioning units utilize a single outdoor unit may reduce the historically distracting banks of exterior units to just a few which could possibly be concealed from vision. Operational and efficiency benefits may also be realized from this.

HEATING & VENTILATING SYSTEMS – POLICE STATION

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Steam from City Hall	Steam to HW HX	Taco?	unknown	5 See Comment 1
Cooling Equipment #1:	Electric	Ductless split units to each room.			8 See comment 2
Cooling Equipment #2:	Electric	Vertical Fan Coil	Carrier Model FB4WP036	2013	10 See Comment 3

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution		Cabinet Unit heater	Air Therm	Hot Water	???	2 to 4 See comment 4
Cooling Distribution Equipment:		Ductless splits	Samsung & others			See cooling equipment above.
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment –	Operable windows					2 See Comment 5
	1500	HW H&V	Unknown			3 See Comment 6
General						See comment 7

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The heat exchanger and pumps are in the main City Hall Boiler Room. The steam control valve has been replaced in the past few years. The pumps are old but have been retrofitted with premium efficiency motors.
2. Virtually every room has 1 to 3 ductless split systems. The condensing units in the front of this historic structure are partially hidden by a shrubbery hedge. In the rear they hang from frames mounted to the building.
3. The server room has 2 3-ton vertical units. One unit is a redundant standby.
4. Most spaces have individual cabinet unit heaters of 20 year or more vintage. Several rooms have cast iron radiators. Some of the radiators have been retrofitted with a self contained thermostatic valve attempting to reduce overheating.
5. There is no mechanical ventilation in the building with the exception of the holding cell area. Even this H&V unit is seasonally turned off. Interior spaces do not meet minimum code requirements. Subjectively the air quality was musty and stale.
6. There is a 1500 CFM H&V unit that serves the holding cells but the unit is only used in the winter for heat. Even when operated the supply and exhaust diffusers are located in the same 2x4 grid and short circuiting.
7. With no mechanical ventilation the air quality is subjectively poor, musty and stale.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

1. Improved ventilation and air quality are the primary concern. Given the lack of space for ducts the issue is challenging and the solutions may vary from are to area. Possible solutions include, high velocity ducts, sweeping tempered fresh air from one exterior wall to exhaust on the opposite side to minimize ductwork to conventional unit ventilators or small air handlers. Location of air handlers and fans and louvers to maintain the integrity of the historical facade will need to be considered as well. Significant additional investigation is required before selecting systems.
2. Integrated into the ventilation recommendations evaluation of improved heating and cooling to improve efficiency and hopefully also reduce the amount of aesthetically detracting exterior equipment should be made.

HEATING & VENTILATING SYSTEMS – FIRE STATION #2

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Steam	From City hall			
Cooling Equipment #1:	Electric	RTU	Unknown	Pre 1990	2 See Comment 1
Cooling Equipment #2:	Electric	Split DX AHU	Condenser York		2
Cooling Equipment #3:		Window units			

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Residence Areas:		RTU	Unknown	Natural Gas	Pre 1990	
Heating Distribution Truck Bays:		Unit Heaters	Modine	Steam	Unknown	2 see Comment 2
Perimeter Heating Equipment:		Cast Iron Radiators	Unknown	Steam	Original	3 See Comment 3

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:	Diffusers				1 See Comment 4

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment:		None				

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HVAC NOTES

1. The RTU serving the upper floor dorm area is undersized and past its useful life. In an attempt to increase the capacity the outside air intake has been closed permanently with a sheet metal cap. To improve the cooling capacity/efficiency a garden hose sprinkler has been set up to spray the condensing units air cooled fins. While this may have worked as a short term fix it is not a long term fix and creates more problems than it may have solved.
2. The unit heaters rapidly lose heat when the garage doors open and have an excessively long recovery period when the doors close. None of the expose piping is insulated.
3. The radiators appear to be original. Valves and traps need service. Most of the observed steam and condensate piping was uninsulated.
4. Numerous diffusers and grilles were observed to be missing and stubs of flex duct would penetrate the ceiling or simply have ceiling tiles removed.

RECOMMENDATIONS

1. Replace the RTU serving the dorm area and rework the distribution ductwork. Size the gas heat and DX cooling appropriately for the load. Provide adequate ventilation with the new unit and balance with exhaust as necessary – particular attention to the locker/shower room is required.
2. Remove the unit heaters from the truck bay and replace with gas fired infrared. The gas infrared will heat objects and people more than the air mass and the effects of open doors will be minimized conserving energy while improving comfort.
3. Provide DDC controls for the new and existing equipment to remain. Coordinate and tie the new controls into the rest of the City Hall system.
4. Replace the Dispatch AHU's condensing unit. Evaluate condition of the AHU and replace as necessary.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL – CITY HALL

	Size	Volts/ Phase	Type	Condition	Notes
Service:	1200amps	208/120v 3ph	Underground	5	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	300kw/Diesel	208/120V,3ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes:
Distribution System:	Fused Switches in City Hall; Switchboard serves Police and Fire HQ's	Fused disconnect switches, Switch and fuse distribution, Circuit breaker loadcenters	Metal clad cable, conduit and wire	5	3

Devices	Type				
Offices:	Duplex	Grounding		5	4
Lobby	Duplex	Grounding		5	
Common Areas:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	
Kitchens:	Duplex	Grounding	GFI	5	
Records	Duplex	Grounding		5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed recessed	5	5
Records	Fluorescent	Lensed recessed, surface wraparounds	5	
Common Areas:	Fluorescent	Lensed recessed, surface wraparounds	5	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	5	
Toilets:	Fluorescent	Lensed	5	
Lobbies	Fluorescent	Decorative, Lensed recessed	5	
Stairs	Fluorescent	Lensed wraparound, strip	5	
Basement	Fluorescent	Strip	5	
Lighting Controls:	Manual, automatic, time clocks	Switches, occupancy sensors	5	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Site Lighting	Lamp Type		Mounting	Condition	Notes
Door Locations	HID		Wall	5	6
Parking:	HID		Wall	5	
Building Entrances:	HID, Fluorescent		Wall	5	
Security System	Type	Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System		Locations	Devices		
Voice/Data	telephone	Offices, common areas	Residential type jacks	5	7
PA System:	NA	NA	NA	NA	
Cable TV	Cox		Wall Jack	5	

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D	Residential type jacks	Telephones, computers	4	7
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen:	T/D	Residential type jacks	Telephones	4	
Records:	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			

	Type	Style		Condition	Notes
Emergency Lighting:	Via Generator		5	8	
Exit Lighting:	LED		5		

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Analog	Notifier	Municipal	N/A	9
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	Limited AS, HD	Limited HS	N/A	5	
Common Areas:	Limited AS, HD	Limited HS	YES	NA	NA
Basement Storage	Limited AS, HD	Limited HS	NA	NA	NA
Maintenance Offices	Limited AS, HD	Limited HS	NA	NA	NA
Electric Service:	Limited AS, HD	NA	NA	NA	
Toilets:	Limited AS, HD	Limited HS	NA	NA	
Sprinkler Service	FS, TS	Limited HS	NA	NA	
Basement	SD	Limited HS	NA	NA	
Municipal Notification	Master box	Sig-Com	Radio Type	NA	
Knox Box	N/A	NA		NA	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, AS- Automatic Sensor FS-Flow Switch, TS-Tamper Switch, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

6. Remove all storage from electric service area. Recommend enclosure of service equipment for security, maintenance of working clearances and isolation from basement garage activities. Recommend placards at service describing normal and emergency services arrangement serving Police and Fire Stations. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service upgrade would be recommended for any planned improvements or renovations.
7. Municipal complex shares one emergency generator by transfer switch connected to main electric service in City Hall. Recommend isolation of emergency services per occupancy from normal power services by rated building construction to preserve power services in event of catastrophic failure of normal power services. Relocation of emergency services out of flood prone locations would also increase safety enhance and reliability. Service and distribution equipment appears to be original to building; recommend operation of fused switches and circuit breakers to confirm proper function, examination and possible retourque of feeder connections. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Recommend placard for temp generator service procedures and updated labeling of all equipment.
8. Panelboards in various area need to be isolated from public access for security, maintenance of working clearances and isolation. Distribution system space and spare capacity for any planned improvements or renovation is minimal. System has mix of commercial and residential (loadcenter) panelboards and should be analyzed for proper application to available fault current to avoid disruption to critical services. Remove all storage from electric rooms. Elevator lacks battery lowering device in event of power outage.
9. Most locations need improved receptacle coverage. Recommend GFI protection for basement, janitor and toilet areas. Most receptacles observed were of the grounding type.
10. Lighting appears to be adequate but in average to poor condition. More automatic controls could save some energy.
11. Exterior lighting needed at some door locations.
12. Communications systems are limited to cable TV and voice and data outlets. Recommend enclosure of communications equipment for security and isolation from dispatch activities. Recommend removal of all defunct equipment, systems and wiring.
13. Emergency lighting is provided by the generator. Exit signage is the illuminated type in limited locations in the building.
14. Upgrade of fire alarm system in building is recommended for code compliance, future expandability, and enhanced occupant and property protection. Addition of elevator recall is needed to meet code requirements and prevent trapping of occupants in elevator.

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Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL – POLICE STATION

	Size	Volts/Phase	Type	Condition	Notes
Service:	400amps	208/120v 3ph	Underground	5	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	300kw/Diesel	208/120V,3ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes:
Distribution System:	Fused Switches in City Hall; Main circuit breakers at Vehicle Sallyport Garage.	Fused disconnect switches, Switch and fuse distribution, Circuit breaker loadcenters	Metal clad cable, conduit and wire	5	3

Devices	Type/Style			Condition	Notes
Offices:	Duplex	Grounding		5	4
Vehicular Sallyport	Duplex	Grounding		5	
Common Areas:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	
Kitchens:	Duplex	Grounding	GFI	5	
Fitness/Assembly:	Duplex	Grounding		5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed recessed	5	5
Vehicular Sallyport	Fluorescent	Industrial reflector	5	
Common Areas:	Fluorescent	Lensed recessed, surface wraparounds	5	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	5	
Toilets:	Fluorescent	Lensed	5	
Stairs	Fluorescent	Lensed wraparound, strip	5	
Basement	Fluorescent	Strip	5	
Lighting Controls:	Manual, automatic, time clocks	Switches, occupancy sensors	5	

Exterior Lighting	Lamp Type	Mounting	Condition	Notes
Door Locations	HID	Wall	5	6
Parking:	HID	Wall	5	
Building Entrances:	HID, Fluorescent	Wall	5	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Security System	Type	Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System	Type	Locations	Devices		
Voice/Data	telephone	Offices, apparatus bay, common areas	Residential type jacks	5	7
PA System:	NA	NA	NA	NA	
Cable TV	Cox	Detectives, Dispatch, Offices	Wall Jack	5	

Tele/Data System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	7
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
:					

	Type	Style		Condition	Notes
Emergency Lighting:	Via Generator	Individual Units	5	8	
Exit Lighting:	LED	Single face in metal enclosures	5		

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Analog	Notifier	Municipal	N/A	9

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	Limited AS, HD	Limited HS	N/A	5	
Common Areas:	Limited AS, HD	Limited HS	YES	NA	NA
Sallyport Bay	Limited AS, HD	Limited HS	NA	NA	NA
Detectives Offices	Limited AS, HD	Limited HS	NA	NA	NA
Electric Service:	Limited AS, HD	NA	NA	NA	
Toilets:	Limited AS, HD	Limited HS	NA	NA	
Sprinkler Service	FS, TS	Limited HS	NA	NA	
Basement	SD	Limited HS	NA	NA	
Municipal Notification	Master box	Sig-Com	Radio Type	NA	
Knox Box	N/A	NA		NA	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, AS- Automatic Sensor FS-Flow Switch, TS-Tamper Switch, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Remove all storage from electric service area. Recommend enclosure of service equipment for security, maintenance of working clearances and isolation from basement garage activities. Recommend placards at service describing normal and emergency services arrangement served from City Hall. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service upgrade would be recommended for any planned improvements or renovations.
2. Municipal complex shares one emergency generator by transfer switch connected to main electric service in City Hall. Recommend isolation of emergency services per occupancy from normal power services by rated building construction to preserve power services in event of catastrophic failure of normal power services. Relocation of emergency services out of flood prone locations would also increase safety enhance and reliability. Service and distribution equipment appears to be original to building; recommend operation of fused switches and circuit breakers to confirm proper function, examination and possible retourque of feeder connections. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Recommend placard for temp generator service procedures and updated labeling of all equipment.
3. Panelboards in dispatch areas needs to be isolated from office activities for security, maintenance of working clearances and isolation. Distribution system space and spare capacity for any planned improvements or renovation is minimal. System has mix of commercial and residential (loadcenter) panelboards and should be analyzed for proper application to available fault current to avoid disruption to critical services. Remove all storage from UPS room.
4. Most locations need improved receptacle coverage. Recommend GFI protection for garage, apparatus bay and toilet areas. Most receptacles observed were of the grounding type.
5. Lighting appears to be adequate but in average to poor condition. More automatic controls could save some energy.
6. Exterior lighting needed at some door locations.
7. Communications systems are limited to cable TV and voice and data outlets. Recommend enclosure of communications equipment for security and isolation from dispatch activities. Recommend removal of all defunct equipment, systems and wiring.
8. Emergency lighting is provided by the generator. Exit signage is the illuminated type with emergency battery units in limited locations in the building. Additional emergency battery lighting is recommended for safety of officers in sallyport and booking areas during generator transfer and/or backup during a generator outage.
9. Upgrade of fire alarm system in building is recommended for code compliance, future expandability, and enhanced occupant and property protection. Addition of smoke and carbon monoxide detectors systems in cell block recommended due to proximity to vehicular sallyport.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL – FIRE STATION #2

	Size	Volts/Phase	Type	Condition	Notes
Service:	400amps	208/120v 3ph	Underground	5	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	300kw/Diesel	208/120V,3ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes:
Distribution System:	Fused Switches in City Hall; Main circuit breakers at Fire Dept. Garage.	Fused disconnect switches, Switch and fuse distribution, Circuit breaker loadcenters	Metal clad cable, conduit and wire	5	3

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		5	4
Apparatus Bay	Duplex	Grounding		5	
Common Areas:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	
Kitchens:	Duplex	Grounding	GFI	5	
Fitness/Assembly:	Duplex	Grounding		5	
Firefighter Quarters	Duplex	Grounding		5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed recessed	5	5
Apparatus Bay	Fluorescent	Lensed Wraparounds	5	
Common Areas:	Fluorescent	Lensed recessed, surface wraparounds	5	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	5	
Toilets:	Fluorescent	Lensed	5	
Firefighter Quarters	Fluorescent	Lensed recessed	5	
Stairs	Fluorescent	Lensed wraparound, strip	5	
Basement	Fluorescent	Strip	5	
Lighting Controls:	Manual, automatic, automatic interfaced with dispatch equipment for illumination during alarm calls	Switches, occupancy sensors	5	

Exterior Lighting	Lamp Type	Mounting	Condition	Notes
Door Locations	HID	Wall	5	6
Parking:	HID	Wall	5	
Building Entrances:	HID, Fluorescent	Wall	5	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Security System	Type	Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System	Type	Locations	Devices		
Voice/Data	Telephone	Kitchen, apparatus bay, common areas	Residential type jacks	5	7
Fire Dispatch PA System:	Fire dispatch with alarm codes	Throughout	Speakers, microphone	8	
Cable TV	Cox	Lounge Area, Dispatch, Firefighters Quarters	Wall Jack	5	

Tele/Data System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	7
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
:					

	Type	Style		Condition	Notes
Emergency Lighting:	EBU	Individual Units	5	8	
Exit Lighting:	LED	Single face in metal enclosures	5		

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Analog	Notifier	Municipal	N/A	9

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	NA	H/S	N/A	5	
Common Areas:	SD	N/A		5	
Apparatus Bay	NA				
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors				

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Electric Service:	SD	N/A		5	
Toilets:	N/A	N/A		N/A	
Sprinkler Service	FS, TS	N/A		N/A	
Basement	SD	N/A		N/A	
Municipal Notification	Master box	Sig-Com	Radio type	N/A	
Knox Box	N/A	N/A		N/A	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, FS-Flow Switch, TS-Tamper Switch, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Remove all storage from electric service area. Recommend enclosure of service equipment for security, maintenance of working clearances and isolation from basement garage activities. Recommend placards at service describing normal and emergency services arrangement served from City Hall. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service upgrade would be recommended for any planned improvements or renovations.
2. Municipal complex shares one emergency generator by transfer switch connected to main electric service in City Hall. Recommend isolation of emergency services per occupancy from normal power services by rated building construction to preserve power services in event of catastrophic failure of normal power services. Relocation of emergency services out of flood prone locations would also increase safety enhance and reliability. Service and distribution equipment is of advanced age; evidence of water infiltration by streaking on service equipment covers; recommend operation of fused switches and circuit breakers to confirm proper function, examination and possible retourque of feeder connections. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Recommend placard for temp generator service procedures and updated labeling of all equipment.
3. Panelboard in stairwell at first floor needs to be relocated to avoid trapping occupants on upper floor in event of fire at panelboard. Distribution system space and spare capacity for any planned improvements or renovation is minimal. System has mix of commercial and residential (loadcenter) panelboards and should be analyzed for proper application to available fault current to avoid disruption to critical services.
4. Most locations need improved receptacle coverage. Recommend GFI protection for garage, apparatus bay and toilet areas. Most receptacles observed were of the grounding type. Open outlet observed at kitchen range, requiring immediate attention.
5. Lighting appears to be adequate but in average to poor condition. More automatic controls could save some energy.
6. Exterior lighting needed at some door locations.
7. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout. Recommend enclosure of communications equipment for security and isolation from dispatch activities.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

8. Emergency lighting is provided by the generator. Exit signage is the illuminated type with emergency battery units in limited locations in the building. Additional emergency battery lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage.
9. Upgrade of fire alarm system in building is recommended for code compliance, future expandability, and enhanced occupant and property protection. Hard wired smoke and carbon monoxide detectors systems in firefighter's quarters will eliminate battery replacements.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	At rear of building on east side.

	Width	Material	Hardware	Conditions
Primary Entrance:	6'-0"	Aluminum/Glass	P/Pull	8
Exterior/Egress Doors:	3'-0", typ.	Aluminum/glass	P/Pull	7
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:		Terrazzo, VCT, CPT	Varies	5
Entrance Vestibules:	8'-0"	RBR		6
Interior Doorways –:	3'-0"	WD/HM	Varies	5
Offices:	3'-0"	WD/HM	Varies	5
Cross – Corridor:				
Stairs:	3'-0"	WD/HM	Varies	5
Toilets:	3'-0"	WD/HM	Varies	5

	Size			Conditions
Vertical Access: (Elevators/Lifts)	Chair lift at east entry, interior Elevator needs new controller, wiring, VVVF drive, smokes	Est. $100,000		7

	Width	Floor Surface	Handrail/ Guard Heights	Conditions
Stairways:	Varies	Terrazzo/VCT/CPT	Varies	5
Ramps:	N/A			

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	One ADA compliant toilet room in Police Station	no	4
Tables & Seating:			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

ACCESSIBILITY NOTES

1. Accessibility evaluation of this complex, multi-purpose building was complicated by the lack of any current floor plans. Evaluators were provided with original 1933 construction documents and had no documentary information on the many internal changes made

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

since that time. When the City obtains current as-built floor plans this assessment should be updated and modified as needed.

2. Public toilets mainly located on stair landings, not accessible. Many have original 1933 plumbing fixtures, insufficient space for turns, access.
3. Service windows have not been modified to ADA standards.

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **FIRE STATION #1**

Address: 394 West Avenue
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, R-2 & S-2** Occupancy
Use Description: Fire Station
Years in Service:
Year Constructed: 1912 Designer:
Additions: Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Renovate bathroom facilities.

SITE

1. Provide one accessible parking space with appropriate striping and signage.

STRUCTURE

1. Replace stairs to the basement and to the upper floor. Secure existing newel posts and railing to framing.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

EXTERIOR ENVELOPE

1. Repair thresholds at garage entrances.
2. Repair roof hatch.
3. Repair lead coated copper parapet cap.
4. Provide additional downspouts/drains.
5. Replaced existing skylight with new at a higher curb.

INTERIOR FINISHES

1. Provide code compliant fire separation at mixed use areas.
2. Replace apparatus bay ceiling. Apparatus bay concrete floor has various cracks depressions.
3. Base cabinets at kitchen need to be replaced.
4. Store all gas containers in fire proof cabinets.
5. Install code compliant exits signs.
6. Install handle type hardware on all doors.

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) indirect storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Replacing all out dated plumbing fixtures with new high efficiency fixtures and replace old faucets with new sensor or metered type low flow faucets.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

3. Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

1. Replace the residential grade baseboard fin radiation with commercial grade equipment.
2. Relocate the second floor thermostats into a representative exterior space.
3. Tap into the existing second floor zones and provide minimal baseboard heat to the core area.
4. Replace the window air conditioners with a single outdoor condensing unit and multiple indoor ductless split air conditioners.

ELECTRICAL

1. Immediate electric service upgrade needed. Relocate service equipment out of apparatus bay.
2. Add emergency lighting for safety of firefighters during generator transfer and/or backup during a generator outage.
3. Install a fire alarm system in building for occupant and property protection.

PROVISIONS FOR ACCESSIBILITY

1. Provide ADA parking space near accessible door.
2. Modify Toilet Rooms for ADA compliance.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	The apparatus space is too small. All spaces are a minimum in size.
Room Quantity:	No issues discussed.
Room Qualities (Fit-up):	Bathroom facilities are not adequate.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	This is the oldest station. The second floor is not accessible.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	0.23 Acres
Lot Area:	0.23 Acres
Topography:	Slopes east to west; Relatively flat except for retaining wall at east side of site
Wetlands:	No wetlands nearby

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Ties in to City system	N/A	N/A	N/A	N/A
Water:	1”	Copper	Plumbing Eng.	N/A	N/A
Electricity:	Overhead from pole	N/A	Site visit	N/A	N/A
Gas:	Unknown	N/A	N/A	N/A	N/A
Oil Tank:	Unknown	N/A	N/A	N/A	N/A
Storm Water Management:	Flows overland to West Ave	N/A	Field Visit	N/A	N/A
Service Areas:	No designated loading/service area	N/A	Field Visit	N/A	N/A
Parking Lots/Access Drive:	4,200 SF	Bituminous Pavement	Field Visit	N/A	8

	Type:	Source	Date Installed	Conditions
Site Lighting:	Building mounted exterior lights & nearby streetlight at corner of West Ave and Sayles Ave	Site Visit	N/A	See Elec. for Bldg mounted lights
Fire Hydrant:	1 municipal hydrant	Site Visit	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking – Lot 1:	6	Bit. Pavement	Within last 5 years	8
Public Access Area:	Bldg is accessible from sidewalk, parking area, and street	Sidewalk – Concrete pavement Parking Area – Bit. Pavement	N/A within last few years	8
Vehicle Storage	2 Indoor Bays – See Arch.	Concrete	N/A	See Arch
Loading & Service	No designated area	Bit. Pavement	N/A	8
Signage:	Adequate	Station sign – wood & laminate Street signs – aluminum	N/A	8
Trash Management Area:	No designated area; Barrels stored outside	Bit. Pavement	N/A	8

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:	>10 ft (for vehicles)	Concrete; Condition - 8
Walkways:	No walkways except for West Ave and Sayles Ave sidewalks	Concrete; Condition - 8
Ramps:	No ramps	N/A
Parking:	No accessible parking spaces provided	N/A

SITE NOTES

1. Block retaining wall around rear of building appears structurally sound and in good condition.
2. Concrete access aprons in good to fair overall condition with some signs of wear and minimal cracking.
3. Parking and circulation around building is fairly tight due to space constraints, but appears adequate for number of employees during each shift
4. There are traffic preemption signals on both approaches along West Avenue, as well as a traffic signal opposite building that is controlled by the fire station during emergencies. Signals appear to be in good operational condition.
5. Two of the three doorways are accessible.
6. No drainage/ponding issues reported. Stormwater flows overland from the rear of the building to West Ave, where it is capture in street curb inlets. Pavement slope in rear of building appears minimal, but no signs of ponding. There is one catch basin along south face of building that does not appear to be catching significant runoff, and may be acting more like an areaway for the building. Two downspouts with external discharge observed on rear face of building.
7. Site lighting is provided via building mounted flood lights at the front, south and east building entrances. The nearest pole light is at the southwest corner of the West Avenue Sayles Avenue intersection.
8. Fire hydrant coverage is adequate for the building.
9. Site signage on West Ave is adequate to prevent parking in designated areas.

RECOMMENDATIONS

1. Provide one accessible parking space with appropriate striping and signage.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls		8
Vertical Support Systems:	Exterior load bearing brick masonry	In fairly good shape, minor re-pointing required.	8
Floor Framing System:	Two-way concrete slab and beam system supported on interior columns and exterior foundation walls.		8
Ground:	Slab-on –grade at apparatus room. Two way concrete slab and beam system over the remaining basement floor areas.		8
Upper Floors:	Wood framed floors at 2nd floor.	Stairs and railings are in poor condition, need replacement ASAP.	8-Framing. 2-stairs and railings.
Roof Framing System:	Wood framed roof. On wood bearing walls at interior spaces.		8
Lateral Force Resisting System:	No verifiable lateral force resisting system identified. Limited lateral resistance is provided by the un-reinforced brick masonry walls.		8

STRUCTURE NOTES

1. The wood stairs to the basement and to the upper floor are very old worn and should be replaced. The newel posts and railings at second floor landing are very loose and need to be properly tied down to framing.
2. Lintels above the windows are all precast stone, and appear in fairly good condition.
3. Refer to "Exterior Envelope" section of this report for more information on the condition of the building's envelope systems.

Condition Key Criteria:

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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick	See Comments Below	8
Exterior Trim/Fascia:	Metal	See Comments Below	8
Sloped Roof Assembly:			
Flat Roof Assembly:	White EPDM	See Comments Below	5
Windows:	Wood	See Comments Below	8
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	3

EXTERIOR ENVELOPE NOTES

1. Thresholds at Garage entrances are damaged.
2. Various damaged precast walls near parking area. Cracked foundation.

ROOF

1. Roof hatch does not have a proper access hatch.
2. Nails backing out at L.C.C. parapet wall patches. Some holes are visible.
3. Parapet cap patches at L.C.C. seams have failed.
4. L.C.C. parapet cap have exposed screws without sealant over them.
5. Entire roof slopes to one side. Not enough downspouts/drains.
6. Skylight should be replaced with new at a higher curb.
7. Minimal roof blown-in insulation above ceiling.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:							
Lobby:							
Corridors:	PLAS	WD	PLAS	8	8	7	
Stairs:	BRK	WD	PLAS	8	7	7	
Toilets:	PLAS	VCT	PLAS	7	8	7	
Service/Mechanical:			OPEN				
Weight Room:							
Apparatus Bay:	BRK	CONC	ACT	8	7	2	
Sleeping Quarters:	PLAS	*VAT	PLAS	7	3	7	
Kitchen:							
Call Center:							

INTERIOR FINISHES NOTES

1. Mixed-Use areas have no Fire Separation
2. Ceiling in Apparatus Bay, have water stains and a large section of plaster above newer ceiling has collapsed. This ceiling needs to be replaced in its entirety.
3. Apparatus bay concrete floor has various cracks depressions.
4. Base cabinets at kitchen need to be replaced.
5. Doors/Windows from Apparatus space are not Fire Rated, typ.
6. Lockers in Apparatus Bay need replacing with new.
7. Wood windows in Apparatus bay needs refurbishing.
8. Wood Lockers are original to building need replacing.
9. 1st Floor bathroom has paint peeling from brick walls.
10. Brick walls in Apparatus Bay are damaged due to prolonged moisture, paint peeling at multiple locations.
11. Numerous gas containers not within Fire proof cabinets.
12. Air conditioners cut into window.
13. Exits signs are not to Code, need to be electronically lit.
14. All doors require handle hardware type instead of twist knob.
15. Base of wood stair is damaged/rotten.
16. Basement windows are missing and/or sealed.
17. (1) Bedroom has a water stain in ceiling.
18. Bathroom in 2nd floor has rusty fin tube cover and stained walls.
19. Bedroom at 2nd floor has patched wall from water damage. Wall needs sanding and painting.
20. Various water stains in 2nd floor ceiling.
21. Vinyl Asbestos Floor Tile (VAT) at 2nd floor.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	1"	1"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to have been replaced within 5 years.	
Gas:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 120 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system.
Storm Drainage:	N/A	N/A / N/A	No interior storm system present
Gas:	N/A	N/A	Oil fired equipment
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Boiler to indirect storage tank water heater / N/A	5+ years.	8	Recommend a Master Hi-Lo Thermostatic Mixing Valve set to 110 degrees F. and have the storage tank set at 140 degrees F. per the RI State Plumbing Code to fixture distribution supply.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	
Interior Kitchen Grease Trap:	N/A	N/A	N/A	

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor mounted with 1.6 GPF flush-o-meters	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	3	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	3	

Condition Key Criteria:

1 – System Failure
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Lavatory:	Wall hung & countertop types	No / No	None	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	N/A / N/A	N/A	3	Several with threaded connections require integral vacuum breakers
Showers:	Stall / floor type	No / No	No		Showers presently have high flow 2.0 plus gpm heads

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in rest rooms. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) indirect storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all out dated plumbing fixtures with new high efficiency fixtures and replace old faucets with new sensor or metered type low flow faucets.
3. Priority 3: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 4: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets.
5. Preventative maintenance: Several areas of the domestic water piping are non-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion of life expectancy and gain energy efficiencies savings.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Offices	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Lobby	NA	NA	NA	NA	NA
Corridors:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

FIRE SUPRESSION SYSTEM NOTES

1.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
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HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Condensing HW	Peerless	2013	10 See Comments 1 & 4
Cooling Equipment #1:	Electric	Window units	Varies	Varies	2 to 7
Cooling Equipment #2:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Office/Residence Areas		Baseboard fin tube	Unknown	Hot Water	Unknown	2 See Comments 2 & 3
Heating Distribution Truck Bays		Infrared	Unknown	Gas	2013	10 See Comment 5
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment		None				

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The new boiler serves 3 existing space heating zone pumps with a domestic hot water override.
2. Much of the residential grade baseboard fin radiation is in very poor condition. The covers have been beaten off and the fins crushed.
3. The second floor has two heating zones. Both thermostats are in the corridor while heating elements are in the perimeter dorm rooms, etc. The perimeter rooms get uncomfortably warm while the thermostats in the passively heated corridors continue to call for heat.
4. A wire tie supports the gas piping off the hot water return.

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

5. Gas fired infrared heat was installed in the truck bays this past winter. A strip runs down each side wall and across the rear of the bays. The method which heats object rather than air has produced much better comfort than the previous unit heaters.

RECOMMENDATIONS

- Replace the residential grade baseboard fin radiation with commercial grade equipment.
- Relocate the second floor thermostats into a representative exterior space.
- Tap into the existing second floor zones and provide minimal baseboard heat to the core area.
- Replace the window air conditioners with a single outdoor condensing unit and multiple indoor ductless split air conditioners.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

ELECTRICAL

Electric Service	Size	Volts/ Phase	Type	Condition	Notes
Service:	200amps	208/120v 1ph	Overhead	2	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	15kw/Natural Gas	240/120V, 1ph	Automatic	8	

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Fused Switch	Fused disconnect switches, Switch and fuse distribution, Circuit breaker loadcenters	Knob and tube, metal clad cable, conduit and wire	2	2

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		2	3
Apparatus Bay	Duplex	Grounding		2	
Common Areas:	Duplex	Grounding		2	
Toilets:	Duplex	Grounding	GFI	2	
Kitchens:	Duplex	Grounding	GFI	2	
Fitness/Assembly:	Duplex	Grounding			

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	3	4
Apparatus Bay	Fluorescent	Lensed Wraparounds	3	
Common Areas:	Fluorescent	Lensed	3	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	3	
Toilets:	Fluorescent	Lensed	3	
Stairs	T8 Fluorescent	Lensed,Strip	3	
Basement	Porcelain Sockets	Compact fluorescent bulb adapters	3	
Firefighters' Quarters	Wall sconces with turn switch at fixture	Compact fluorescent bulb adapters	3	
Lighting Controls:	Manual only, automatic interfaced with dispatch equipment for illumination during alarm calls	Switches	3	

Exterior Lighting	Lamp Type	Mounting	Condition	Notes
Door Locations	Incandescent	Wall	2	5
Parking:	Quartz Incandescent	Wall	2	
Walkways:		Wall	M	
Building Entrances:	Fluorescent	Wall	M	

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System	Type	Locations	Devices		
Voice/Data	telephone	Kitchen, apparatus bay, common areas	Residential type jacks	4	6
Fire Dispatch PA System:	Fire dispatch with alarm codes	Throughout	Speakers	8	
Cable TV	Cox	Lounge Area	Wall Jack	4	

Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	7
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
Auditorium:					

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type	Manufacturer	Controls	Date of Installation	Conditions
Emergency Lighting:	N/A		N/A	8	
Exit Lighting:	N/A		N/A		

	Type	Manufacturer	Notifications	Date of Installation	Conditions
Fire Alarm System:	N/A	N/A	N/A	N/A	9
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	NA	N/A	N/A	N/A	9
Common Areas:	Battery Smoke detectors	N/A		3	
Apparatus Bay					
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors				
Electric Service:	N/A	N/A		N/A	
Toilets:	N/A	N/A		N/A	
Sprinkler Service	N/A	N/A		N/A	
Basement	N/A	N/A		N/A	
Municipal Notification	N/A	N/A		N/A	
Knox Box	N/A	N/A		N/A	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Immediate electric service upgrade needed. Recommend relocation of service equipment out of apparatus bay; Potential for fire given reports of under voltage conditions when electrical demand is heavy, creating overheated wiring condition Recommend confirmation of all loads with updated panel board labeling and circuit directories. Service and distribution equipment of advanced age; recommend operation of fused switches to confirm proper function, examination and possible re-torque of feeder connections. Recommend placard for emergency power service connection and confirmation of all loads with updated panel board labeling and circuit directories. Recommend installing a small weatherproof service enclosure adjacent to the emergency generator for new electric service circuit breakers and equipment. New panels could be located in basement with new wiring throughout.
2. Most locations lack adequate receptacle coverage. Recommend GFI protection for apparatus bay and toilet area. Most receptacles observed were of the grounding type.
3. Lighting appears to be adequate but in poor condition. Light switches needed at fire fighters quarters, lacks automatic controls throughout.
4. Exterior lighting limited and lacking at door locations. No exit discharge lighting for emergency egress was observed.
5. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout.
6. Lighting is connected to generator. Exit signage is limited and of the non-illuminated type. There are no emergency battery units in the building.

Condition Key Criteria:

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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

7. Addition of emergency lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage
8. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

Condition Key Criteria:

1 – System Failure
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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	ADA parking space not provided near accessible door.

	Width	Material	Hardware	Conditions
Primary Entrance:		WD	Lever	7
Exterior/Egress Doors:		WD	Lever	7
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:		VCT, CONC.		5
Entrance Vestibules:				
Interior Doorways –		WD	Knob	4
Offices:		WD	Knob	4
Corridor:				
Stairs:		WD		4
Toilets:		VCT		3

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	30”	WD	Not ADA	4
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Toilet Rooms not ADA compliant		3
Tables & Seating	N/A		
Drinking Fountains:	None		
Public Tele:	None		
Controls:			
Signage:			
Emergency Alarms:	None		

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **FIRE STATION #3**

Address: 2 Columbus Ave.
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, R-2 & S-2** Occupancy
Use Description: Fire Station
Years in Service: 55
Year Constructed: 1958 Designer: Charles G. Everett
Additions: N/A Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

No program recommendations this facility.

SITE

1. Re-grade and repave bituminous pavement and concrete aprons in driveway east side of building within three years.
2. Install new concrete pavement in driveway at west side of building within five years.
3. Re-stripe accessible parking spaces at the rear of the building to meet code. Add accessible parking signs.

STRUCTURE

1. Install fireproofing at roof steel in the boiler room.
2. Repair 4” drop in grade from the rear threshold of the apparatus floor slab to the exterior driveway.

Condition Key Criteria:

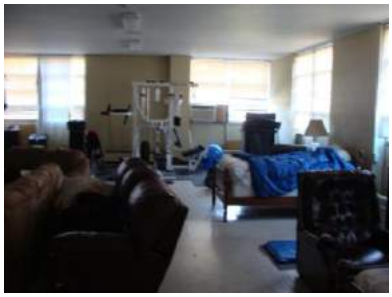
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

EXTERIOR ENVELOPE

1. Replace existing windows.
3. Re-caulk around insulated wall panels,
4. Rebuild masonry chimney.
5. Roof membrane not adhering to scupper overflow.
6. Re-point brick below scuppers.
7. Repair wood soffit, add insect screen.

INTERIOR FINISHES

1. Install code compliant fire separation at mixed-use areas.
2. Install code compliant exits signs, internally illuminated.
3. Replace apparatus bay ceiling.
4. All doors require handle hardware type instead of twist knob.
5. Replace toilet partitions need replacement.
6. Replace tile at shower compartments.
7. Replace exterior door at mechanical room.



Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Replacing all roof drains with dual integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet becomes blocked.
3. Replacing all public faucets with new sensor or metered type low flow faucets.
4. Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Negotiate with the utility company to bring natural gas into the building.
2. Remove the three abandoned unit heaters and four current unit heaters from the truck bay. Replace with gas fired, infrared heaters.
3. Replace the present hot water boiler with a condensing boiler.
4. Clean the casing and fins of the baseboard heat.
5. Provide exhaust to the bathrooms and shower area.
6. Replace window units with ductless split AC units.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

1. Upgrade and re-locate electrical service equipment out of boiler room.
2. Adapting generator to dual fuel use and connect to underground natural gas. Eliminate propane deliveries.
3. Install a fire alarm system in building for occupant and property protection.

PROVISIONS FOR ACCESSIBILITY

1. Install grab bars, re-locate fixtures for accessibility.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	No issues discussed.
Room Qualities (Fit-up):	No issues discussed.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	No issues discussed.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	0.83 acres
Lot Area:	23.19 acres
Topography:	Relatively flat
Wetlands:	None nearby

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Ties into City system	N/A	N/A	N/A	N/A
Water:	1”	Copper	Plumbing Eng.	N/A	N/A
Electricity:	Underground	N/A	Site visit	N/A	N/A
Gas:	1”	Steel?	Plumbing Eng.	N/A	N/A
Oil Tank:	Yes, size unknown		Field Visit	N/A	8
Storm Water Management:	Runoff flows overland to Columbus Ave or McCoy Stadium access drive	N/A	Field Visit	N/A	N/A
Driveway Area:	Front: 3,400 SF Rear: 2,800 SF	Concrete Bit. Pavement	Field Visit Field Visit	N/A N/A	5 4
Parking Lots:	Rear – 1,900 SF	Concrete	Field Visit	N/A	8
	Front - none	N/A	N/A	N/A	N/A

	Type:	Source	Date Installed	Conditions
Site Lighting:	Pole Mounted fixtures on Columbus Ave and at rear of building at McCoy Stadium access drive.	Field Visit	N/A	8
	Building mounted exterior lights	Field Visit	N/A	See electrical
Fire Hydrant:	Three hydrants exist within 300’ of building	Field Visit	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking Lot Rear	2 Spaces striped. Rear of building has space for at least 8 vehicles if striped.	Concrete	N/A	8
Public Access Area:	See walkways			
Vehicle Storage	2 Indoor Bays – See Arch			See Arch
Loading & Service	No designated area; rear of building would be most sensible	Bit. pavement	N/A	3
Signage:	Signage is minimal - Additional signs recommended	Site Sign – Plastic/Wood Typ. – Alum w/ Steel posts	N/A	8
Trash Management Area:	Barrels located outside of rear overhead door	Bit Pavement	N/A	3

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	Conditions
Curb Cuts:	North Corner of Ben Mondor Way and Columbus Ave: 3 ft wide	Concrete – severely cracked and uneven	Not compliant - 2
	West side of building from McCoy: <4 ft wide	Concrete	Not compliant – 8
	South corner of Ben Mondor Way and Columbus Ave: 3.5ft wide	Concrete	4
	Front South: 3.5 ft wide	Concrete	4
	Front North: 3.5 ft wide	Concrete	5
Walkways:	Front north: 4ft wide	Concrete	6
	Front south: <4 ft wide	Concrete	5
	Along Columbus Ave: 8 ft wide	Concrete	5
	Along McCoy Stadium access drive: 9 ft wide	Concrete	8
Ramps:	One (1) ramp >5ft wide	Concrete with steel handrail	9
Parking:	Two (2) accessible parking spaces provided (9'x18')	Concrete pavement	8

SITE NOTES

1. Accessible parking spaces at building rear are not code compliant, since ramp entrance is potentially blocked by parking space. No accessible parking signs provided.
2. Settlement of concrete apron at both overhead truck entrances at rear of building has created 3"-4" high threshold to enter truck bays.
3. There are no preemptive traffic signals in front of Station along Columbus Ave in the case of call.
4. There is no signage on Columbus Ave indicating the approach of the Fire Station. There are no signs indicating parking for fire station only on the rear side of bldg. There are no signs for the accessible parking spaces.

RECOMMENDATIONS

1. Regrade and repave bituminous pavement and concrete aprons in driveway at rear of building (east side) within the next 3 years.
2. Install new concrete pavement in driveway at front of building (west side) within the next 5 years. Temporary patching or repairs should be considered in the interim.
3. Re-stripe accessible parking spaces at the rear of the building to meet code. Add accessible parking signs.
4. Re-build portions of sidewalk in poor condition and accessible curb ramps at sidewalk locations that do not meet code within the next three years.
5. Consider installing preemptive traffic signals at Pond Street Columbus Street intersection that will be controlled by the fire station.
6. Install street signage indicating Fire Station ahead.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls		9
Vertical Support Systems:	Exterior steel columns and interior CMU load bearing wall.		9
Floor Framing System:	N/A single story structure, roof only.		
Ground:	Slab-on-grade.	Minor non-structural cracking	9
Upper Floors:	N/A		
Roof Framing System:	Long span bar joists supported on steel girders and load bearing CMU wall at interior separation wall between apparatus room and common areas. Roof deck spanning between bar joists is a 1.5" deep painted metal deck.		9
Lateral Force Resisting System:	No verifiable lateral force resisting system noted. Limited lateral resistance is provided by the interior and exterior assumed unreinforced CMU walls.		9

STRUCTURE NOTES

1. All windows are original single glazed windows and need replacing. Refer to the "Exterior Envelope" section of this report for more information on the condition of these building systems.
2. Exterior brick veneer is in very good condition. Roofing is in good condition, and all of the roof edge coping has been replaced recently.
3. There is no fireproofing on any of the roof steel, including the metal roof deck and joists in the boiler room.
4. The apparatus room has a plaster ceiling of unknown rating.
5. There is an approximate 4" drop in grade from the rear threshold of the apparatus floor slab, to the exterior driveway, making for an abrupt transition from inside to outside of the building. This should be addressed if it creates a problem, or if the edge of the concrete begins to chip and spall.

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Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick	See Comments Below	9
Exterior Trim/Fascia:	Wood	See Comments Below	8
Sloped Roof Assembly:			
Flat Roof Assembly:	EPDM White roof membrane	See Comments Below	7
Windows:	Awning, aluminum in Wall Panel	See Comments Below	2
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	

EXTERIOR ENVELOPE NOTES

1. Potential Asbestos caulking around aluminum windows.
2. At Garage Door openings, grade has dropped substantially at door thresholds.
3. Gas container close to Mechanical exterior door. This door has a couple of pipes located at face of door threshold.
4. Multiple locations where air conditioning units are located through windows.
5. Wall panels are approx... 2” above grass area on concrete slab. No thermal brake to interior.
6. Caulking around insulated wall panels has failed. Caulking may contain asbestos.
7. Overhead garage doors have numerous dents.

ROOF

1. Multiple locations of standing water on EPDM roof membrane.
2. Skylight curbs have mechanical louver on side. This needs to be removed.
3. Chimney cap missing. Multiple cracks. Exposed brick voids. Caulking at every possible joint. Chimney needs to be demolished and rebuilt from roof to cap.
4. Roof membrane not adhering to scupper overflow.
5. Brick repointing required at areas below scupper. Large open cracks.
6. Wood soffit has a couple of opening cut. Recommend an insect screen be installed.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:							
Lobby:							
Corridors:							
Stairs:	CMU	CONC	PLAS	8	8	7	
Toilets:	CT	CT	PLAS	6	8	8	
Service/Mechanical:	CMU		OPEN				
Weight Room:							
Apparatus Bay:	CMU	CONC	PLAS	9	8	1	
Sleeping Quarters:	CMU	VCT	PLAS/GWB	8	6	8	
Kitchen:	PLAS/CMU	VCT	PLAS/GWB	8	6	7	
Call Center:							

INTERIOR FINISHES NOTES

1. Ceiling in Kitchen area has water stains.
2. Windows shades need replacement.
3. Exits signs are not to Code, need to be electronically lit.
4. Exterior door requires new hardware.
5. Apparatus Bay ceiling water damage. Needs full replacement.
6. All doors require handle hardware type instead of twist knob.
7. At all window and door locations and toilet area, walls are constructed of insulated panels.
8. Bathroom Lavatories need replacement of faucets.
9. Urinal clearance tight to wall.
10. Toilet partitions need replacement.
11. Tile at shower compartments need replacing.
12. At shower compartment, light not working. Caulk plaster to CMU wall.
13. Lockers and VCT flooring need to be replaced with new.
14. Sleeping quarters are a multi-use space. No privacy. Area includes weight area and lounge.
15. Mechanical Room exterior door needs to be replaced.
16. Asbestos insulation visible in Mechanical Room.
17. Mixed-Use areas have no Fire Separation
18. Doors/Windows from Apparatus space are not Fire Rated, typ.
19. Multiple mouse traps.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard

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N/A – Not applicable/Not available
M – Missing

VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water incoming service:	1"	1"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to of original building construction	
Gas:	1"	NGRID	Yes	Low Pressure	Black Steel	NGRID	Appears to be 3 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the system to discharge to daylight.
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Natural Gas (Low Pressure)	3+ years.		Dom. Water appears to be 3 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor mounted with 1.6 GPF flush-o-	Meets code 1.6 GPF but not high	Refer to architectural	3	Some fixtures appear to be

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
	meters and tank types	efficiency types No / No	comments		original and above the 1.6 GPF code maximum requirements.
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	3	
Lavatory:	Wall hung & countertop types	No / No	None	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	3	Several with threaded connections require integral vacuum breakers
Showers:	Stall / Floor	No / No	No		Shower heads not low flow types (2.5 gpm)

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.
3. Priority 3: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
4. Priority 4: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
5. Priority 5: Janitors sinks have non compliant threaded faucets without integral vacuum breakers and leaking. Recommend replacing with new faucets.
6. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

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N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Offices	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Lobby	NA	NA	NA	NA	NA
Corridors:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

FIRE SUPRESSION SYSTEM NOTES

1.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	#2 Oil	Hot Water, CI Sectional Boiler	Weil McClain 500 MBH ±	Unknown	6
Cooling Equipment #1:	Electric	Window Units	Varies	Varies	3 to 6
Cooling Equipment #2:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Bay Heating:	?	Horizontal Unit heaters		Hot Water	Unknown	1 to 4 See Comment 1
Cooling Distribution Equipment:		Window Units	Varies	Electric	Varies	4 to 7
Perimeter Heating Equipment:		Industrial grade baseboard	Unknown	Hot Water	Unknown	8

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Offices:					
Lobby:					
Corridors:					
Toilets:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment		Side Wall		manual	Unknown	7 See Comment 2
		Side Wall		manual	Unknown	Unknown See Comment 3
		None in Toilet, locker or shower rooms.				

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The original vertical unit heaters have been abandoned in place. Only three of the four replacement horizontals unit function and the bay is always cold especially after the doors have been opened.
2. Small wall fan mounted to the right of the kitchen stove.
3. A temperature relief fan is mounted in the curb of the upper level skylight and would be used to purge stratified hot air. Operational status unknown.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

- Negotiate with the utility company to bring natural gas into the building.
- Remove the three abandoned unit heaters and four current unit heaters from the truck bay. Replace with gas fired, infrared heaters.
- Replace the present hot water boiler with a condensing boiler. The new boiler should be sized without capacity for the garage which will now be on the infrared heat.
- Clean the casing and fins of the baseboard heat.
- Provide exhaust to the bathrooms and shower area.
- Replace window units with ductless split AC units.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

Electric Service:	Size:	Volts/ Phase	Type:	Condition	Notes
Service:	200amps	208/120v 1ph	Underground	4	1

Transformer:	Pole		NGrid		

Emergency Generator:	15kw/Natural Gas	240/120V, 1ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring		
Distribution System:	Fused Switch	Fused disconnect switches, Switch and fuse distribution, Circuit breaker loadcenters	Conduit and wire, metal clad cable	4	3

Devices	Type				
Offices:	Duplex	Grounding		4	4
Apparatus Bay	Duplex	Grounding		4	
Common Areas:	Duplex	Grounding		4	
Toilets:	Duplex	Grounding	GFI	4	
Kitchens:	Duplex	Grounding	GFI	4	
Fitness/Assembly:	Duplex	Grounding		4	

Lighting	Type	Style		
Offices:	Fluorescent	Lensed	4	5
Apparatus Bay	Fluorescent	Strip Fluorescent	4	
Common Areas:	Fluorescent	Lensed Wraparounds	4	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	4	
Toilets:	Fluorescent	Lensed Wraparounds	4	
Stairs	NA	NA		
Basement	NA	NA		
Firefighters' Quarters	Fluorescent	Lensed Wraparounds	4	
Lighting Controls:	Manual only, automatic interfaced with dispatch equipment for illumination during alarm calls	Manual switches Time clocks	4	

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Site Lighting	Lamp Type		Mounting	Date of Installation	Conditions
Door Locations	Compact Fluorescent		Wall	5	6
Parking:	NA		Wall	5	
Walkways:			Wall		
Building Entrances:	Compact Fluorescent		Wall		
Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System		Locations	Devices		
Voice/Data	telephone	Kitchen, apparatus bay, common areas	Residential type jacks	4	7
Fire Dispatch PA System:	Fire dispatch with alarm codes with microphone	Throughout	Wall and Ceiling Speakers	8	
Cable TV	Cox	Lounge Area	Wall Jack	4	

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D	Residential type jacks	Telephones, computers	4	8
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
Auditorium:					

Condition Key Criteria:

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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type	Manufacturer	Controls	Date of Installation	Conditions
Emergency Lighting:	N/A		N/A	9	
Exit Lighting:	N/A		N/A		

	Type	Manufacturer	Notifications	Date of Installation	Conditions
Fire Alarm System:	N/A	N/A	N/A	N/A	10
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	NA	N/A	N/A	N/A	
Common Areas:	Battery Smoke detectors	N/A	N/A	N/A	
Apparatus Bay	N/A	N/A	N/A	N/A	
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors	N/A	N/A	N/A	
Electric Service:	N/A	N/A	N/A	N/A	
Toilets:	N/A	N/A	N/A	N/A	
Sprinkler Service	N/A	N/A	N/A	N/A	
Basement	N/A	N/A	N/A	N/A	
Municipal Notification	N/A	N/A	N/A	N/A	
Knox Box	N/A	N/A	N/A	N/A	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D-Telephone/data

ELECTRICAL NOTES

1. Electric service upgrade needed. Recommend relocation of service equipment out of boiler room for security and working clearances. Recommend confirmation of all loads with updated panel board labeling and circuit directories. Service and distribution equipment of advanced age; recommend operation of fused switches to confirm proper function, examination and possible re-torque of feeder connections. Recommend placard for emergency power service connection and confirmation of all loads with updated panel board labeling and circuit directories.
2. Consider adapting generator to dual fuel use to connect to underground natural gas and eliminate propane deliveries.
3. Distribution system appears original to structure and in serviceable shape. Replacement and expansion will be needed for any additions or updates.
4. Most locations need more receptacle coverage as evidenced by use of plug strips. Recommend GFI protection for apparatus bay and toilet areas. Most receptacles observed were of the grounding type. Weatherproof cover needed at receptacle between front apparatus doors.
5. Lighting appears to be adequate but of advanced age; High output fluorescent with half switching by automatic controls in apparatus bays recommended for energy savings. Recommend automatic light switches at fire fighters quarters, lacks automatic controls throughout.
6. Exterior lighting provided at door locations and apparatus ramps. Exit discharge lighting for emergency egress is provided by emergency generator connection of lighting.

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N/A – Not applicable/Not available
M – Missing

7. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout. Staff advised new updates are being installed. Removal of all defunct equipment, systems and wiring recommended.
8. All lighting is connected to emergency generator. Exit signage is limited and of the non-illuminated type. There are no emergency battery units in the building.
9. Addition of emergency lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage
10. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

Condition Key Criteria:

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N/A – Not applicable/Not available
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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Metal	Not ADA	4
Exterior/Egress Doors:				
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –	3'-0"	Metal/WD	Not ADA	2
Offices:	3'-0"	WD	Not ADA	2
Corridor:				
Stairs:	N/A			
Toilets:	30"	WD	Non ADA	2

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	N/A			
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Not adequate floor space, no grab bars		3
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **FIRE STATION #4**

Address: 397 Cottage Street
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, R-2 & S-2** Occupancy
Use Description: Fire Station
Years in Service: 39
Year Constructed: 1974 Designer: Richard C. Niebuhr
Additions: N/A Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

Condition Key Criteria:
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2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

No priority recommendations

SITE

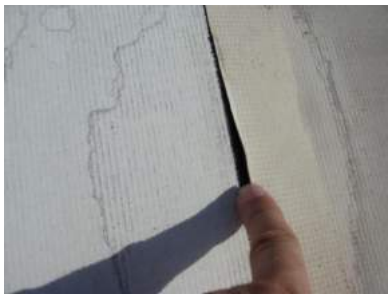
1. Provide two (2) striped accessible spaces per ADA code, and associate parking signs.
2. Rebuild curb ramp at Cottage Street/George Bennett Highway to be meet ADA requirements.
3. Install accessible curb ramps at driveway curb cuts for both Cottage Street and Freeman Street walkways.
4. Replace/repair concrete panels in North and South driveways that are cracked, broken, settled, or show significant surface deterioration.

STRUCTURE

No structural recommendations

EXTERIOR ENVELOPE

1. Remove and replace existing roof, flashing, tapered insulation.
2. Provide additional roof drains to adequately accept rainwater.



Condition Key Criteria:
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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

INTERIOR FINISHES

1. Provide code compliant fire separation at mixed-use areas.
2. Replace ceiling in apparatus bay.
3. Remove outdoor grill from interior when in use.
4. Install washable ceiling in kitchen.
5. Replace chin bar wire support with metal rods.
6. Install code compliant exits signs.
7. Install handle hardware type at all doors.

PLUMBING

1. Install thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Replace all roof drains with dual storm system integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlets become blocked.
3. Replace all public faucets with new sensor or metered type low flow faucets.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

1. Replace the unit heaters in the truck bays with gas fired, infrared heaters
2. With the reduced load on the boiler consider replacing it with a smaller capacity condensing unit.
3. Insulate the hot water piping wherever accessible, the boiler room etc.
4. Restore/provide mechanical ventilation to areas without operable windows or high occupancy.
5. Remove the existing kitchen hood and cap the ductwork. Replace the hood with a filtered re-circulating unit.

ELECTRICAL

1. Upgrade electrical service needed. Remove all storage from electric service equipment area. Recommend relocation of service equipment out of boiler room for security and working clearances. Confirm all loads with updated panel board labeling and circuit directories.
2. Hard wire emergency generator battery charger. Provide fire rated separation between emergency generator, electric services and boiler equipment.
3. Install a fire alarm system for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

1. Install grab bars in toilet rooms, modify spaces for ADA compliance.

Condition Key Criteria:
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10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	No issues discussed.
Room Qualities (Fit-up):	No issues discussed.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	This is the newest station.

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N/A – Not applicable/Not available
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SITE DATA

	Description
Land Used:	1.04 Acres
Lot Area:	1.04 Acres
Topography:	Flat
Wetlands:	None within 400 ft of site

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	4”	N/A	1973 Proposed Site Plan	1974	N/A
Water:	2”/4”	Copper / Cast Iron	1973 Proposed Site Plan (option was for 2” Copper or 4” Cast Iron)	1974	N/A
Electricity:	Underground	N/A	Electrical Eng.	N/A	N/A
Gas:	1” Gas	Steel?	Plumbing Eng.	N/A	N/A
Oil/Fuel Tank:	2000 Gallon Underground Oil Tank 500 Gallon Underground Propane Tank	N/A N/A	1973 Proposed Site Plan 1973 Proposed Site Plan	1974 1974	N/A N/A
Storm Water Management:	8” Roof Drain Overland flow north and south of bldg to Cottage Street and Freeman Street	N/A	1973 Proposed Site Plan Site Visit	1974	N/A
Service Areas:	No designated loading/service area; parking area used	Bit. Pavement	Site Visit	N/A	6
Parking Lots:	South Lot: 11,200 SF North Lot: 790 SF	Bit. Pavement Bit. Pavement	Site Visit, Aerial Site Visit, Aerial	N/A	6 8
Driveway North	4,050 SF	Concrete Pavement	Site Visit, Aerial	N/A	7
Driveway South	4,500 SF	Concrete Pavement	Site Visit, Aerial	N/A	6

	Type:	Source	Date Installed	Conditions
Site Lighting:	Lightpole on Cottage Street Lightpole on Freeman Street Building mounted exterior lights	Site Vist Site Visit Site Visit	N/A N/A N/A	8 8 See electrical
Fire Hydrant:	2 hydrants within 150 ft of bldg	Site Visit	N/A	8

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N/A – Not applicable/Not available
M – Missing

	# Spaces	Material	Date Installed	Conditions
Parking Lot – North:	3	Bit. Pavement	N/A	8
Parking Lot - South	27	Bit. Pavement	N/A	6
Public Access Area:	See Sidewalk section below			
Vehicle Storage	N/A	N/A	N/A	N/A
Loading & Service	No designated spaces	Bit. Pavement	N/A	6
Signage:				
Trash Management Area:	Grass Island between south parking lot and driveway	Grass	N/A	8

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	
Walkway: Cottage St. East	6' – 7' wide, 70' long	Bit. Pavement	2
Cottage St. West	6'-7' wide, 47' long	Concrete	8
Walkway: Freeman Street	8' wide, 210' long	Bit. Pavement	8
Walkway: Front door	6.5' wide, 65' long	Concrete	8
	3.5' wide, 28' long	Concrete	8
Accessible Ramps:	Cottage St. west: 2' wide	Bituminous	Not Compliant; 8
	Cottage St. east: 3' wide	Concrete	8
Parking:	None provided	N/A	N/A

SITE NOTES

1. Site Lighting appears adequate, except for southern portion of bituminous parking lot (no pole lights or street lights nearby)
2. Hydrant spacing is adequate for site coverage
3. Warning light observed across from building on Cottage Street; uncertain whether traffic signals at cottage street intersections can be controlled by fire station during calls.
4. No street signage indicating Fire Station ahead
5. Concrete curbing around site shows some deterioration, but still serviceable.
6. No accessible parking spaces designated
7. Portions of north and south concrete driveways contain broken and cracked concrete panels, some have settled.
8. Walkway along Cottage Street on both sides of north driveway does not have accessible curb ramps.
9. Walkway along Freeman Street on both sides of south driveway does not have accessible curb ramps.
10. Bituminous pavement at walkway of Cottage Street/Freeman Street intersection is severely cracked and heaved due to tree roots.
11. Section of bituminous sidewalk along Freeman Street is missing and filled in with grass/gravel.

RECOMMENDATIONS

1. Provide two (2) striped accessible spaces per ADA code, and associate parking signs.
2. Rebuild curb ramp at Cottage Street/George Bennett Highway to be meet ADA requirements.

Condition Key Criteria:
1 – System Failure
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3. Install accessible curb ramps at driveway curb cuts for both Cottage Street and Freeman Street walkways.
4. Replace/repair concrete panels in North and South driveways that are cracked, broken, settled, or show significant surface deterioration.
5. Crack fill and seal coat bituminous parking lot south of building to prolong pavement life. Re-paving should be considered in next 5 to 10 years.
6. Rebuild walkway at corner of Cottage Street/Freeman Street intersection
7. If secondary doors to building are locked to the public, main entrance doors on north side building needs to have an accessible ramp built to provide an accessible route.

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BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundations walls.		9
Vertical Support Systems:	Steel frame and load bearing CMU.		9
Floor Framing System:	Slab on grade throughout, no basement.		9
Ground:	Slab-on-grade.		9
Upper Floors:	N/A		
Roof Framing System:	Steel bar joists supported on interior load bearing CMU		9
Lateral Force Resisting System:	No verifiable lateral force resisting system noted. The assumed un-reinforced exterior block provides some but limited lateral resistance.		9

STRUCTURE NOTES

1. The Building, structurally, appeared to be in relatively good condition. No structural issues were noted. See “Building Envelope” section of this report for more info on the exterior of the building.

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Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick/Panel	See Comments Below	8
Exterior Trim/Fascia:	Metal	See Comments Below	8
Sloped Roof Assembly:			
Flat Roof Assembly:	White EPDM	See Comments Below	5
Windows:	Aluminum	See Comments Below	8
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	3

EXTERIOR ENVELOPE NOTES

1. Concrete sidewalk by garage door thresholds are cracked and damaged.
2. Infill opening in brick in-between garage doors.

ROOF

1. Rooftop mechanical equipment at (1) location is covered in plastic bag.
2. Lower roof area is not properly pitched. Large area where there is standing water.
3. There aren't enough roof drains to adequately accept rainwater.
4. Multiple signs of roof leaks. There are areas with small water spots indicating that on this hot day that the water is coming up from soaked insulation below membrane.
5. Multiple locations where screw/nail has started to back out and will eventually puncture membrane.
6. Multiple locations where seams and patches have started to fail. No longer adhering to main EPDM.
7. Wall Paneling along upper roof was repaired using wood members instead of metal which is typical throughout building.
8. Flashing along brick to upper roof is not secured properly. Flashing should be located a minimum of 8" above roof area. This flashing is approx. located at 3".

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Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:							
Lobby:							
Corridors:	CMU	VCT	ACT	8	8	7	
Stairs:							
Toilets:	CMU/CT	CT	ACT	8/8	8	8	
Service/Mechanical:	CMU		OPEN	8			
Weight Room:	CMU	VCT	ACT	8	8	7	
Apparatus Bay:	CMU	CONC	ACT	8	8	5	
Sleeping Quarters:	CMU	VCT	ACT	8	8	7	
Kitchen:	CMU	VCT	ACT	8	8	7	
Call Center:	CMU	VCT	ACT	8	8	8	

INTERIOR FINISHES NOTES

1. Mixed-Use areas have no Fire Separation
2. Ceiling in Apparatus Bay is missing numerous tiles, have water stains and need to be replaced in its entirety.
3. Outdoor grill clearly indicates that it is being used indoors. This item need to be placed outside of building when in use.
4. Garage doors indicate that there are a number of dents.
5. Doors/Windows from Apparatus space are not Fire Rated, typ.
6. Lockers in Apparatus Bay need replacing with new.
7. Wood Lockers are original to building need replacing.
8. Kitchen area has standard drop ceiling. Recommend replacing with gyp. Bd. Ceiling or washable commercial kitchen ceiling tiles.
9. Weight room not sufficiently sized for this facility.
10. Weight room has chin-up bar hanging from ceiling. Wiring support from ceiling should be replaced with metal rods.
11. Handicap toilet does not meet ANSI A117.1 standards.
12. New shower installation is ongoing. Shower is fiberglass and not suitable for commercial applications.
13. Exits signs are not to Code, need to be electronically lit.
14. Shower door at (1) bathroom will need replacing. Showing signs of wear and tear, rusting screws.
15. All doors require handle hardware type instead of twist knob.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet

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N/A – Not applicable/Not available
M – Missing

VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

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N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	1 ½"	1 ½"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears of original building construction	
Gas:	1"	NGRID	Yes	Low Pressure	Black Steel	NGRID	Appears to be 5 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the system to discharge to daylight.
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	Equipment water make-up
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Natural Gas (Low Pressure)	5+ years.		Dom. Water appears to be 5 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	8	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.

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10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	8	
Lavatory:	Wall hung & countertop types	No / No	None	8	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall mounted	No / No	No	8	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	8	Several with threaded connections require integral vacuum breakers
Showers:	Stall / Floor	No / No	No	8	Shower heads not low flow types (2.5 gpm)

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.
3. Priority 3: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
4. Priority 4: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
5. Priority 5: Janitors sinks have non compliant threaded faucets without integral vacuum breakers and leaking. Recommend replacing with new faucets.
6. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Offices	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Lobby	NA	NA	NA	NA	NA
Corridors:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

FIRE SUPRESSION SYSTEM NOTES

1.

Condition Key Criteria:
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Hot Water CI Sectional	Weil McClain Series 88 700 to 1,500 MBH input	Boiler Unknown Burner 2012	7 See 9 Comments 1 & 2
Cooling Equipment #1:	Electric	VRF Split			8 See Comment 3
Cooling Equipment #2:	Electric	Window units			

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Office/Residence Areas		Baseboard Fin		Hot Water		
Heating Distribution Truck Bays		(6) Unit Heaters		Hot Water		3 See Comment 4
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					
Offices:					
Lobby:					
Corridors:					
Toilets:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment		(6) dome fans	Unknown		Unknown	4 See Comment 5
		Kitchen Hood				3 See Comment 6

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The boiler and burner are in fair condition however there is virtually no insulation on the BR piping.
2. There are sheet metal ducts above the ceiling of the boiler room but no obvious combustion air supply.

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N/A – Not applicable/Not available
M – Missing

3. The Office/ Residence area is covered by a multi indoor unit VRF system. There are a few supplemental window units such as in the dispatch room.
4. The massive space of the truck bays is inadequately covered by the six unit heaters and the area get cold quickly as the doors open for entering or leaving traffic.
5. The roof is spotted with six dome type belt driven fans. On the date of the inspection none were running.
6. The residential cook stove has an under cabinet hood vented to the roof. On inspection of the roof the associated gooseneck has a plastic garbage bag duct taped over the opening.

RECOMMENDATIONS

- Replace the unit heaters in the truck bays with gas fired, infrared heaters
- With the reduced load on the boiler consider replacing it with a smaller capacity condensing unit.
- Insulate the hot water piping wherever accessible, the boiler room etc.
- Restore/provide mechanical ventilation to areas without operable windows or high occupancy.
- Remove the existing kitchen hood and cap the ductwork. Replace the hood with a filtered re-circulating unit.

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N/A – Not applicable/Not available
M – Missing

ELECTRICAL

Electric Service:	Size	Volts/ Phase	Type	Condition	Notes
Service:	225amps	208/120v 1ph	Underground	4	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	Notes
Emergency Generator:	15kw/Natural Gas	240/120V, 1ph	Automatic	5	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Circuit breaker	Fused disconnect switches, Circuit breaker loadcenters	Conduit and wire, metal clad cable	4	3

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		4	4
Apparatus Bay	Duplex	Grounding		4	
Common Areas:	Duplex	Grounding		4	
Toilets:	Duplex	Grounding	GFI	4	
Kitchens:	Duplex	Grounding	GFI	4	
Fitness/Assembly:	Duplex	Grounding		4	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	4	5
Apparatus Bay	Fluorescent	Strip Fluorescent	4	
Common Areas:	Fluorescent	Lensed Wraparounds	4	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	4	
Toilets:	Fluorescent	Lensed Wraparounds	4	
Stairs	NA	NA		
Basement	NA	NA		
Firefighters' Quarters	Fluorescent	Lensed Wraparounds	4	
Lighting Controls:	Manual only, automatic interfaced with dispatch equipment for illumination during alarm calls	Manual switches Time clocks	4	

Exterior Lighting	Lamp Type	Mounting	Date of Installation	Conditions
Door Locations	Compact Fluorescent, HID	Wall	5	6
Parking:	NA	Wall	5	
Walkways:		Wall		
Building Entrances:	Compact Fluorescent	Wall		

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N/A – Not applicable/Not available
M – Missing

Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System		Locations	Devices		
Voice/Data	telephone	Kitchen, apparatus bay, common areas	Residential type jacks	4	7
Fire Dispatch PA System:	Fire dispatch with alarm codes with microphone	Throughout	Wall and Ceiling Speakers	8	
Cable TV	Cox	Lounge Area	Wall Jack	4	

Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	8
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type		Condition	Notes
Auditorium:					

	Type	Manufacturer	Controls	Condition	Notes
Emergency Lighting:	N/A		N/A	9	
Exit Lighting:	N/A		N/A		

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	N/A	N/A	N/A	N/A	10
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	NA	N/A	N/A	N/A	
Common Areas:	Battery Smoke detectors	N/A	N/A	N/A	
Apparatus Bay	N/A	N/A	N/A	N/A	
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors	N/A	N/A	N/A	
Electric Service:	N/A	N/A	N/A	N/A	
Toilets:	N/A	N/A	N/A	N/A	
Sprinkler Service	N/A	N/A	N/A	N/A	
Basement	N/A	N/A	N/A	N/A	
Municipal Notification	N/A	N/A	N/A	N/A	
Knox Box	N/A	N/A	N/A	N/A	

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N/A – Not applicable/Not available
M – Missing

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Electric service upgrade needed. Remove all storage from electric service equipment area. Recommend relocation of service equipment out of boiler room for security and working clearances. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service and distribution equipment of advanced age; recommend operation of fused switches to confirm proper function, examination and possible retourque of feeder connections. Recommend placard for emergency power service connection and confirmation of all loads with updated panelboard labeling and circuit directories.
2. Hard wiring of emergency generator battery charger recommended. Fire rated separation of emergency generator from electric services and boiler equipment recommended; Ideally replacement of generator to exterior location is recommended. Removal of city water cooling heat exchanger arrangement will reduce water consumption.
3. Distribution system appears original to structure and in serviceable shape. Replacement and expansion will be needed for any additions or updates. Some open outlets were observed requiring blank plates.
4. Most locations need more receptacle coverage as evidenced by use of plug strips. Recommend GFI protection for apparatus bay and toilet areas. Most receptacles observed were of the grounding type.
5. Lighting appears to be adequate but of advanced age; High output fluorescent with half switching by automatic controls in apparatus bays recommended for energy savings. Recommend automatic light switches at fire fighters quarters, lacks automatic controls throughout.
6. Exterior lighting provided at door locations and apparatus ramps. Exit discharge lighting for emergency egress is provided by emergency generator connection of lighting.
7. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout. Staff advised new updates are being installed. Removal of all defunct equipment, systems and wiring recommended.
8. All lighting is connected to emergency generator. Exit signage is limited and of the non-illuminated type. There are no emergency battery units in the building.
9. Addition of emergency lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage
10. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Aluminum	P/Pull	8
Exterior/Egress Doors:	3'-0"	Aluminum	P/Pull	8
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:	5'-0"	VCT	P/Pull	7
Entrance Vestibules:				
Interior Doorways –	3'-0"	Aluminum	P/Pull	7
Offices:	3'-0"	Aluminum	P/Pull	7
Corridor:				
Stairs:				
Toilets:	3'-0"	Aluminum	P/Pull	7

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	N/A			
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Not ADA Compliant, no grab bars, door swings in		4
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **FIRE STATION #5**

Address: 301 Smithfield Avenue
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, R-2 & S-2** Occupancy
Use Description: Fire Station
Years in Service: 60
Year Constructed: 1963 Designer: Joseph D. Guillemette
Additions: N/A Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

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M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

No priority recommendations

SITE

1. Repair or replace concrete panels in driveway and along edge of parking area as needed.

STRUCTURE

1. Remove and replace existing roofing as soon as possible.
2. Remove precast concrete planters at the front of the building.
3. Verify structural integrity and repair or replace all exposed wood columns and beams for water and/or insect damage.

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N/A – Not applicable/Not available
M – Missing

EXTERIOR ENVELOPE

1. Replace all exterior glazing and re-point all window sills.
2. Remove and replace wood canopy at garden.
3. Repair damage at soffits

INTERIOR FINISHES

1. Provide code compliant fire separation at mixed-use areas.
2. Install code compliant exit signs.
3. Install handle type hardware at all doors.
4. Repair damage to dining area wall.

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Recommend replacing all public faucets with new sensor or metered type low flow faucets.
3. Install fiberglass insulation to avoid condensation on pipes.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

1. Insulate all hot water piping, replace damaged or missing insulation in the boiler room and wherever exposed.
2. Provide exhaust to the bathroom.
3. Install gas fired infrared heat in the truck bay.

ELECTRICAL

1. Electric service upgrade needed, confirm all loads with updated panel board labeling and circuit directories. Provide placard for emergency power service connection and confirmation of all loads with updated panel board labeling and circuit directories.
2. Adapt generator to dual fuel use and connect to underground natural gas, eliminate propane deliveries.
3. Install a fire alarm system in building for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

1. Install grab bars in toilet rooms, modify spaces for ADA compliance.

Condition Key Criteria:
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N/A – Not applicable/Not available
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OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	No issues discussed.
Room Qualities (Fit-up):	The wood trellis at the entrance is deteriorating
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	A "California style station". Best for its size (3 people).

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N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	0.40 acres
Lot Area:	0.40 acres
Topography:	Relatively Flat
Wetlands:	No apparent wetlands

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Unknown	N/A	N/A	N/A	N/A
Water:	Unknown	N/A	N/A	N/A	N/A
Electricity:	Underground Electric service to building at rear.	N/A	Field Visit	N/A	N/A
Gas:	Gas service to building at rear.	N/A	Field Visit	N/A	N/A
Oil Tank:	Unknown	N/A	N/A	N/A	N/A
Storm Water Management:	No stormwater management observed. Area drains to perimeter system in City streets.	N/A	N/A	N/A	N/A
Service Areas:	None designated (front driveway)	Concrete	Field Visit	N/A	N/A
Driveway Area:	2,700 SF	Concrete	Field Visit	N/A	8
Parking Lots:	1,040 SF	Bituminous Concrete	Field Visit	N/A	8

	Type:	Source	Date Installed	Conditions
Site Lighting:	No site lighting except for building mounted fixtures and perimeter street lighting along Smithfield Avenue and Grotto Avenue.	Field Visit	N/A	For Bldg fixtures see electrical;
Fire Hydrant:	There is a fire hydrant located on the east side of Smithfield Ave. at the Grotto Ave. intersection in close proximity to the building.	Field Visit	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking – Lot 1:	Parking for approximately 5 vehicles available at front of building. Spaces are not striped. Two signs denoting area for "Fire Department" personnel only. Building is also accessible from the rear	Bit. Pavement / Concrete	N/A	8

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N/A – Not applicable/Not available
M – Missing

	# Spaces	Material	Date Installed	Conditions
	at parking area for Greene Elementary School.			
Public Access Area:	See walkway section below			
Vehicle Storage	Two indoor emergency vehicle bays	Concrete – See Arch.	N/A	N/A
Loading & Service	No loading areas identified (front driveway used)	Concrete	N/A	8
Signage:	Two signs denoting area for "Fire Department" personnel only. "Pawtucket Fire Department" sign in lawn at front of building.	Parking Signs – Alum w/ Steel base Site sign is wood	N/A	8
Trash Management Area:	Trash and recycle bins stored externally at rear of building.	Field Visit	N/A	N/A

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:	At driveway entrance – 51' No curb cuts at crosswalk across Smithfield Ave. Curb cut at crosswalk across Grotto Ave – 3'	Concrete; Condition 8 Concrete; Condition 8
Walkways:	Perimeter sidewalk along Smithfield Ave. – 8' Sidewalk to living quarters – 4' Main egress pad (flush) – 9'	Concrete – 8 Concrete – 8 Concrete - 8
Ramps:	None	N/A
Parking:	No Handicap parking on-site	N/A

SITE NOTES

1. No pre-emptive traffic signal on Smithfield Ave during emergency calls.
2. Hydrant coverage is adequate.
3. No signs along Smithfield Ave for Fire Station ahead.

RECOMMENDATIONS

1. Repair or replace concrete panels in driveway and along edge of parking area as needed.

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M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls		8
Vertical Support Systems:	Steel columns.	Exterior wood members need follow-up inspection. See note No. 3 below.	9
Floor Framing System:	One way concrete slab and beam system over basement areas.		9
Ground:	Slab-on-grade in apparatus room.		8
Upper Floors:	N/A		
Roof Framing System:	Wood glulam beams at common spaces, and longspan bar joists over apparatus room.	Roof membrane is in poor condition.	8-Structure 2- Roofing
Lateral Force Resisting System:	No verifiable lateral force resisting system noted.		8

STRUCTURE NOTES

1. Building needs a new roof. Existing roof appears to be at end of useful life; therefore, roofing should be replaced as soon as possible.
2. Precast concrete planters at the front of the building are falling apart should be removed or repaired.
3. Exposed glulam wood framing members need a coat of stain or paint at exterior of the building. All exposed wood columns and beams should be evaluated for water and/or insect damage and for structural integrity.
4. Single glazed windows should be replaced. Refer to “Exterior Envelope” section of this report for more information on these systems.

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M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick	See Comments Below	8
Exterior Trim/Fascia:	Metal	See Comments Below	8
Sloped Roof Assembly:	EPDM	See Comments Below	7
Flat Roof Assembly:	EPDM	See Comments Below	
Windows:	Wood	See Comments Below	6
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	3

EXTERIOR ENVELOPE NOTES

1. Thresholds at Garage entrances are damaged.
2. Open voids at various locations on brick walls.
3. Wood canopy at garden needs to be razed and re-built.
4. Dining area exterior walls are undermined at corner. This area seems to have been added on after construction of original building. Year not known.
5. Air Conditioner cut into window opening.
6. One soffit location is damaged. Seems like there may have been a small fire. Large soffit opening.
7. Exterior wood beams are weathered.
8. Window sills need repointing.

ROOF

1. Roof not accessible for review.
2. EPDM membrane is secured with termination bar on roof fascia. Not an industry standard detail.

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M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	CMU			8			
Lobby:							
Corridors:							
Stairs:							
Toilets:	CT	CT		8	8		
Service/Mechanical:			OPEN				
Weight Room:							
Apparatus Bay:	CMU	CONC	PLAS	8	8	7	
Sleeping Quarters:	CMU	VCT		8	7		
Kitchen:	CMU	CT		8	8		
Call Center:							

INTERIOR FINISHES NOTES

1. Mixed-Use areas have no Fire Separation
2. Doors/Windows from Apparatus space are not Fire Rated, typ.
3. Exits signs are not to Code, need to be electronically lit. Doors by the roll-up doors do not have signs at all.
4. All doors require handle hardware type instead of twist knob.
5. Asbestos pipe insulation visible in Basement.
6. Glazed CMU block exterior walls damaged at base.
7. Dining area wall damaged. Needs to be repaired.
8. Mouse traps throughout building.
9. Weight room and sleeping quarters share the same space.
10. Damaged plaster corner at Apparatus Bay.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

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N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	UNK	UNK	UNK	City Pressure	Copper	City	Service is Original. Water meter assembly could not be located. Possible exterior meter pit situation.	
Propane Gas:	1”	N/A	Yes	Low Pressure	Black Steel/ CSST	Propane supplier	Appears to be 5 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type “L” / 8	None / M	Recommend providing glass fiber insulations
Domestic Hot Water:	Copper Type “L” / 8	None / M	Recommend providing glass fiber insulations. Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	N/A	N/A	
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	Equipment water make-up
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Propane Gas (Low Pressure)	5+ years.		Dom. Water appears to be 5 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	8	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	8	
Lavatory:	Wall hung & countertop types	No / No	None	8	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	N/A	N/A	N/A	N/A	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	8	With threaded connections require integral vacuum breakers
Showers:	Stall / Floor	No / No	No	8	Shower heads not low flow types (2.5 gpm)

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
3. Priority 3: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 4: Janitors sink has non compliant threaded faucet without integral vacuum breakers. Recommend replacing with new faucet.
5. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:						
Water Service Entrance #2:						
Backflow Prevention:						

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:					

		Type of Head	Zone	Date of Installation	Conditions
Suppression System					
Offices					
Large Spaces					
Lobby					
Corridors:					
Fire Department Connections:					
Exterior:					
Interior:					
Shut-Off Valves:					
Pre-Action Controls:					

FIRE SUPRESSION SYSTEM NOTES

1.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Condensing Hot water Boiler	Lochinvar Knight XL	New	10 See Comment 1, 2 & 3
Cooling Equipment #1:	Electric	(3) PTAC	Mitsubishi		8
Cooling Equipment #2:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Office/Residence Areas		Baseboard Cabinet Htr (foyer)	Unknown Trane	Hot Water		6 6
Heating Distribution Truck Bays		(2) Unit Heaters	Unknown	Hot Water		5 See Comment 4
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment		Wall	Broan	manual	Unknown	1 See Comment 5
		Ceiling	Unknown	Light Switch	Unknown	4 See Comment 6

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The new PVC sealed combustion and vent penetrate the wall.
2. There are three existing zone pumps.
3. The new header and immediate boiler piping are insulated the majority of the existing piping is not.
4. Piping runs length of the garage – there are mudded joints on the insulation elbows.
5. The bathroom fan is non-functional.
6. The locker Room has a small ceiling fan mounted above the shower that operates off the local light switch but there is nothing at the toilets.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

- Insulate all hot water piping, replace damaged or missing insulation in the boiler room and wherever exposed.
- Provide exhaust to the bathroom.
- Consider using gas fired infrared heat in the truck bay.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

Electric Service	Size	Volts/ Phase	Type	Condition	Notes
Service:	200amps	208/120v 1ph	Underground	4	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	15kw/Natural Gas	240/120V, 1ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes:
Distribution System:	Circuit breaker	Fused disconnect switches, Circuit breaker load centers	Conduit and wire, metal clad cable	4	3

Devices	Type/Style			Condition	Notes
Offices:	Duplex	Grounding		4	4
Apparatus Bay	Duplex	Grounding		4	
Common Areas:	Duplex	Grounding		4	
Toilets:	Duplex	Grounding	GFI	4	
Kitchens:	Duplex	Grounding	GFI	4	
Fitness/Assembly:	Duplex	Grounding		4	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	4	5
Apparatus Bay	Fluorescent	Lensed	4	
Common Areas:	Fluorescent	Lensed Wraparounds	4	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	4	
Toilets:	Fluorescent	Lensed Wraparounds Incandescent	4	
Stairs	Fluorescent	Lensed Wraparounds		
Basement	Fluorescent	Strip Fluorescent		
Firefighters' Quarters	Fluorescent	Lensed Wraparounds	4	
Lighting Controls:	Manual only, automatic interfaced with dispatch equipment for illumination during alarm calls	Manual switches Time clocks	4	

Exterior Lighting	Lamp Type	Mounting	Condition	Notes
Door Locations	Compact Fluorescent, HID	Wall	5	6
Parking:	NA	Wall	5	
Walkways:		Wall		
Building Entrances:	Compact Fluorescent	Wall		

Condition Key Criteria:
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5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System		Locations	Devices		
Voice/Data	Telephone	Kitchen, apparatus bay, common areas	Residential type jacks	4	7
Fire Dispatch PA System:	Fire dispatch with alarm codes with microphone	Throughout	Wall and Ceiling Speakers	8	
Cable TV	Cox	Lounge Area	Wall Jack	4	

Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	8
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
Auditorium:					

	Type	Style		Condition	Notes
Emergency Lighting:	N/A			N/A	9
Exit Lighting:	N/A			N/A	

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	N/A	N/A	N/A	N/A	10

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	NA	N/A	N/A	N/A	
Common Areas:	Battery Smoke detectors	N/A	N/A	N/A	
Apparatus Bay	N/A	N/A	N/A	N/A	
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors	N/A	N/A	N/A	
Electric Service:	N/A	N/A	N/A	N/A	
Toilets:	N/A	N/A	N/A	N/A	
Sprinkler Service	N/A	N/A	N/A	N/A	

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Basement	N/A	N/A	N/A	N/A	
Municipal Notification	N/A	N/A	N/A	N/A	
Knox Box	N/A	N/A	N/A	N/A	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

4. Electric service upgrade needed. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service and distribution equipment original to building; recommend operation of circuit breakers to confirm proper function, examination and possible retourque of feeder connections. Recommend placard for emergency power service connection and confirmation of all loads with updated panelboard labeling and circuit directories.
5. Consider adapting generator to dual fuel use to connect to underground natural gas and eliminate propane deliveries.
6. Distribution system appears original to structure and in serviceable shape. Replacement and expansion will be needed for any additions or updates. Some open outlets were observed requiring blank plates.
7. Most locations need more receptacle coverage as evidenced by use of plug strips. Recommend GFI protection for apparatus bay and toilet areas. Most receptacles observed were of the grounding type.
8. Lighting appears to be adequate but of advanced age; High output fluorescent with half switching by automatic controls in apparatus bays recommended for energy savings. Recommend automatic light switches at fire fighters quarters, lacks automatic controls throughout.
9. Exterior lighting provided at door locations and apparatus ramps. Exit discharge lighting for emergency egress is provided by emergency generator connection of lighting.
10. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout. Staff advised new updates are being installed. Removal of all defunct equipment, systems and wiring recommended.
11. All lighting is connected to emergency generator. Exit signage is limited and of the non-illuminated type. There are no emergency battery units in the building.
12. Addition of emergency lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage
13. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	Yes, see Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:			Not ADA	3
Exterior/Egress Doors:			Not ADA	3
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:		HM	Not ADA	3
Interior Doorways –		HM	Not ADA	3
Offices:		HM/WD	Not ADA	3
Corridor:			Not ADA	3
Stairs:				
Toilets:		WD	Not ADA	3

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	N/A			
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Not ADA Compliant, no grab bars, no turning		2
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **FIRE STATION #6**

Address: 385 Newport Avenue
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, R-2 & S-2** Occupancy
Use Description: Fire Station
Years in Service: 65
Year Constructed: 1948 Designer:
Additions: NA Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Provide a day room.
2. Public ADA accessible bathrooms for the adjacent playing fields.

SITE

1. Repave driveway within 5 years
2. Provide accessible parking space and make building entrance accessible.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

STRUCTURE

1. Re-point exterior window sills of rowlock brick throughout the building.
2. Clean and paint steel lintels above windows to avoid continued corrosion.

EXTERIOR ENVELOPE

1. Repair garage door jamb thresholds.
2. Replace exterior door at stairwell.
3. Replace downspout missing at corner wall.
4. Repair roof fascia.
5. Repair wood window sills, re-caulk windows, repair lower windows.
6. Repair front entry wood posts at base

INTERIOR FINISHES

1. Provide code compliant fire separation at mixed-use areas.
2. Install code compliant exits signs.
3. Install handle type hardware at all doors.
4. Seal all interior wall penetrations
5. Repair roof leak at storage area.
6. Deal with rodent problem.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Replace all public faucets with new sensor or metered type low flow faucets.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Install gas fired, infrared heat to the truck back and remove the existing steam unit heaters.
2. Replace the cast iron steam boiler with a new condensing hot water boiler.
3. Provide new piping to commercial grade baseboard radiation, remove the old steam convectors, provide local thermostats and control valves to the radiation.
4. Replace the window air conditioners with a single outdoor condensing unit and multiple indoor ductless split air conditioners.

ELECTRICAL

1. Electric service upgrade needed. Recommend confirmation of all loads with updated panel board labeling and circuit directories. Service and distribution equipment original to building; recommend operation of circuit breakers to confirm proper function, examination and possible re-torque of feeder connections. Recommend placard for

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

emergency power service connection and confirmation of all loads with updated panel board labeling and circuit directories.

2. Consider adapting generator to dual fuel use to connect to underground natural gas and eliminate propane deliveries.
3. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

PROVISIONS FOR ACCESSIBILITY

1. Make building entrance accessible.
2. Install grab bars in toilet rooms, modify spaces for ADA compliance.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	A day room or kitchen is needed (currently these functions share the same space). Public bathrooms are required to service the adjacent playing fields.
Room Qualities (Fit-up):	No issues discussed.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	This is one of the oldest stations. A small three person station.

Condition Key Criteria:
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10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	0.52 acres
Lot Area:	0.30 acres
Topography:	Relatively Flat
Wetlands:	No apparent wetlands

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	6" sanitary sewer to Newport Ave.	N/A	1943 Plot Plan	1940's	N/A
Water:	2" water service from Newport Ave. Water gate at southwest corner of building.	N/A	1943 Plot Plan	1940's	N/A
Electricity:	Underground electric service to building from electric manhole at front of building.	N/A	Field Visit	N/A	N/A
Gas:	1" (?) Gas service on south side of building.	Steel?	Field Visit	N/A	N/A
Oil/ Fuel Tank:	Fill cap for potential underground oil tank observed on south side of building.	Unknown	Field Visit	N/A	N/A
	Above ground propane tank on east side of bldg	Steel	Field Visit	N/A	8
Storm Water Management:	No stormwater management observed. Area drains to perimeter drainage in City streets. Three (3) area ways with grates observed – may have area drains at bottom (filled with debris)	N/A	Field Visit	N/A	N/A Area ways filled with debris (further inspection required)
Service Areas:	None designated (driveway likely used)	Bit. Concrete	Field Visit	N/A	5
Driveway Area:	2,100 SF	Bituminous Concrete	Field Visit	N/A	5
Parking Lots:	950 SF	Bituminous Concrete	Field Visit	N/A	5

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type:	Source	Date Installed	Conditions
Site Lighting:	No site lighting except for building mounted fixtures and perimeter street lighting along Newport Avenue and sports fields to the east.	Field Visit	N/A	Building fixtures see Electrical Street light - 8
Fire Hydrant:	There is a fire hydrant located on the east side of Newport Ave. approximately 220 feet south of the Fire Station.	Field Visit	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking – Lot 1:	Parking for approximately 4 vehicles available at front of building. Spaces are not striped.	Bituminous Concrete	N/A	5
Public Access Area:	See walkway section			
Vehicle Storage	Two indoor emergency vehicle bays.	Concrete – See architecture	N/A	N/A
Loading & Service	No loading areas designated (driveway used)	Bituminous Concrete	N/A	5
Signage& Signalization:	Pre-emptive traffic signals along Newport Ave. at pedestrian bridge. Fire Station sign along Newport Ave south of station. "No Parking" sign along curb on east side of Newport Ave. south of station. "Pawtucket Fire Department" sign in lawn at front of building.	Varies Parking Signs – Alum w/ Steel base (typ.) Site sign wood	N/A	8; Signage and traffic signals are adequate for site.
Trash Management Area:	None observed.	Field Visit	N/A	N/A

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:	Curb cut at driveway entrance and sidewalk along Newport Ave – 52' wide	Concrete (Granite curb)
Walkways:	Sidewalk along east side of Newport Ave. directly in front of Fire Station. A pedestrian bridge crossing Newport Ave. is located slightly south of the Fire Station. Concrete patio/pad on east side of building	Concrete; 8 minor cracks and wear but still in good overall condition Concrete; 8
Ramps:	Building front door is not handicap accessible. Threshold is stepped up from grade (no ramp exists)	N/A
Parking:	No Handicap parking spaces designated on-site	N/A

SITE NOTES

1. Bituminous pavement in driveway adjacent to concrete curb cut/sidewalk has deteriorated and broken away. Re-paving is recommend within next 5 years.
2. Bituminous pavement in Newport Ave at concrete curb cut/sidewalk entrance is cracked and breaking apart. Repair as needed.
3. Entrance to building is not accessible. No accessible parking spaces provided.

Condition Key Criteria:
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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete foundation walls.		8
Vertical Support Systems:	Exterior walls are solid brick masonry approximately 12" thick.	Masonry needs scattered re-pointing on general masonry and all window sills need re-pointing.	5
Floor Framing System:	First floor areas above basement are framed with steel beams supporting a one way concrete slab system.		8
Ground:	Slab-on-grade at apparatus room.		8
Upper Floors:			
Roof Framing System:	Wood framed roof.	Roof shingles are in fairly good condition.	8
Lateral Force Resisting System:	No conventional lateral force resisting system defined. Limited lateral force resistance is provided by the unreinforced brick masonry walls.		

STRUCTURE NOTES

- Inadequate drainage in apparatus room as water ponds at MH between truck bays.
- Exterior window sills of rowlock brick need to be re-pointed throughout the building, as Mortar is washed-out in the head joints. This should be done within the next 5 years.
- Steel lintels above windows need to cleaned and painted to avoid continued corrosion. This should be done in conjunction with the re-pointing work.

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N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick/Precast/Wood	See Comments Below	8
Exterior Trim/Fascia:	Wood	See Comments Below	3
Sloped Roof Assembly:	Asphalt		
Flat Roof Assembly:			
Windows:	Aluminum Replacement	See Comments Below	
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	3

EXTERIOR ENVELOPE NOTES

1. Repoint Brick at various locations.
2. Caulking of Garage door jamb required.
3. Garage door jamb are rotten at thresholds.
4. Exterior door at stairwell need replacement.
5. Downspout missing at corner wall by damaged exterior door. Brick needs repointing.
6. Roof fascia is rotten and/or damaged at various locations. Metal patches.
7. Wood window sill are damaged.
8. Front entry wood posts are rotten at base. Brick needs repointing at wood beams.
9. Brick sills at windows need repointing. Multiple locations were caulking has been added in lieu of existing mortar.
10. Minimal to no caulking around window wood jams/Sills/Header. All these components need to be replace in kind.
11. (1) Lower window is broken. Needs to be replaced immediately.
12. Brick needs repointing at window steel lintels.

ROOF

1. Asphalt roof shingles not appropriate material at lower sloped roof area where lockers are located. These shingles look like they're starting to fail.

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N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:							
Lobby:							
Corridors:	PLAS	*VAT	PLAS	8	3	8	
Stairs:	CMU	CONC/*VAT	PLAS	8	3	7	
Toilets:	CT/PLAS	CT	PLAS	8	8	8	
Service/Mechanical:	CMU		OPEN	8			
Weight Room:	PLAS	*VAT	PLAS	5	3	7	
Apparatus Bay:	CT/PLAS	CONC	PLAS	7	8	3	
Sleeping Quarters:	PLAS	VCT	PLAS/GWB	8	7	8	
Kitchen:	PLAS/CT	CT/*VAT	PLAS/GWB	8	8/1	7	
Call Center:							

INTERIOR FINISHES NOTES

1. Mixed-Use areas have no Fire Separation
2. Plaster thresholds at apparatus doors are damaged and need replacing.
3. Doors/Windows from Apparatus space are not Fire Rated, typ.
4. Wood Lockers are original to building need replacing.
5. Mouse Traps through facility.
6. Suspect asbestos insulation around piping at Locker area.
7. No proper toilet facilities off of apparatus bay area.
8. Plaster surround around windows need replacing and/or patching.
9. Green paint is peeling off of brick wall.
10. Exits signs are not to Code, need to be electronically lit.
11. Exterior door requires new hardware.
12. Wire glass in door is broken.
13. Steel stair pan paint is chipping and along plaster wall.
14. All doors require handle hardware type instead of twist knob.
15. Multiple wall penetrations need to be sealed at Basement walls to Stairwell, near door.
16. Water is coming into stairwell at Basement wall penetration to exterior.
17. Damaged wall and floor tile in bathrooms.
18. Bathroom Lavatories need replacement of faucets.
19. Major roof water leak at storage area.
20. Large rodent seen in Attic!!! Large rat traps and small mouse traps noticed.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet

Condition Key Criteria:
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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:
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PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	1 ½"	1 ½"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears of original building construction	
Gas:	1"	NGRID	Yes	Low Pressure	Black Steel	NGRID	Appears to be 5 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	N/A	N/A	N/A
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	Equipment water make-up
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Natural Gas (Low Pressure)	5+ years.		Dom. Water appears to be 5 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	5	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	5	

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M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Lavatory:	Wall hung & countertop types	No / No	None	5	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall mounted	No / No	No	5	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	5	Several with threaded connections require integral vacuum breakers
Showers:	Stall / Floor	No / No	No	5	Shower heads not low flow types (2.5 gpm)

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
3. Priority 4: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 5: Janitors sink have non compliant threaded faucet without integral vacuum breakers and leaking. Recommend replacing with new faucets.
5. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

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M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:						
Water Service Entrance #2:						
Backflow Prevention:						

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:					

		Type of Head	Zone	Date of Installation	Conditions
Suppression System					
Offices					
Large Spaces					
Lobby					
Corridors:					
Fire Department Connections:					
Exterior:					
Interior:					
Shut-Off Valves:					
Pre-Action Controls:					

FIRE SUPRESSION SYSTEM NOTES

1.

Condition Key Criteria:
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HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	LP Steam CI Sectional	Weil McClain 578 521 MBH output.	Boiler unknown Burner 2012	6 See 9 Comments 1 & 2
Cooling Equipment #1:	Electric	Window Units	Varies	Unknown	3 to 6
Cooling Equipment #2:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Office/Residence Areas		Recessed Convectors	Unknown	Steam	Original	6 See Comment 3
Heating Distribution Truck Bays		(2) Unit heaters	Unknown	Steam	Unknown	6 See Comment 4
Perimeter Heating Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment	NA	NA	NA	NA	NA	NA

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N/A – Not applicable/Not available
M – Missing

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The boiler and burner are in fair condition however there is virtually no insulation on the BR piping.
2. There are reported problems of “rotted” pipes.
3. The original steam convectors are not well zoned and there are problems with hot and cold areas.
4. The warm air mass escapes every time the bay doors are open and is slow to recover.

RECOMMENDATIONS

- Provided gas fired, infrared heat to the truck back and remove the existing steam unit heaters.
- Replace the cast iron steam boiler with a new condensing hot water boiler.
- Provide new piping to commercial grade baseboard radiation.
    - Remove the old steam convectors
    - Provide local thermostats and control valves to the radiation.
- Replace the window air conditioners with a single outdoor condensing unit and multiple indoor ductless split air conditioners.

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ELECTRICAL

Electric Service:	Size:	Volts/ Phase	Type:	Condition	Notes
Service:	200amps	208/120v 1ph	Underground	4	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch	Condition	
Emergency Generator:	15kw/Natural Gas	240/120V, 1ph	Automatic	8	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Circuit breaker	Fused disconnect switches, Switch and fuse panelboards, Circuit breaker loadcenters	Conduit and wire, metal clad cable	4	3

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		4	4
Apparatus Bay	Duplex	Grounding		4	
Common Areas:	Duplex	Grounding		4	
Toilets:	Duplex	Grounding	GFI	4	
Kitchens:	Duplex	Grounding	GFI	4	
Fitness/Assembly:	Duplex	Grounding		4	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	4	5
Apparatus Bay	Fluorescent	Lensed	4	
Common Areas:	Fluorescent	Lensed Wraparounds	4	
Fitness/Assembly:	Fluorescent	Lensed Wraparounds	4	
Toilets:	Fluorescent	Lensed Wraparounds Incandescent	4	
Stairs	Fluorescent	Lensed Wraparounds	4	
Basement	Fluorescent	Strip Fluorescent	4	
Firefighters' Quarters	Fluorescent	Lensed Wraparounds	4	
Lighting Controls:	Manual only, automatic interfaced with dispatch equipment for illumination during alarm calls	Manual switches Time clocks	4	
Exterior Lighting	**Lamp Type**	**Mounting**	**Condition**	**Notes**
Door Locations	Compact Fluorescent, HID	Wall	5	6
Parking:	NA	Wall	5	
Walkways:		Wall		
Building Entrances:	Compact Fluorescent	Wall		

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Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	N/A				

Communications System		Locations	Devices		
Voice/Data	telephone	Kitchen, apparatus bay, common areas	Residential type jacks	4	7
Fire Dispatch PA System:	Fire dispatch with alarm codes with microphone	Throughout	Wall and Ceiling Speakers	8	
Cable TV	Cox	Lounge Area	Wall Jack	4	

Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D	Residential type jacks	Telephones, computers	4	8
Multipurpose Room:	T/D	Residential type jacks	Telephones	4	
Kitchen	T/D	Residential type jacks	Telephones	4	
Apparatus Bay	T/D	Residential type jacks	Telephones	4	

Local Sound Systems	System Devices	Type			
Auditorium:					

	Type	Manufacturer	Controls	Condition	Notes
Emergency Lighting:	N/A		N/A	9	
Exit Lighting:	N/A		N/A		

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	N/A	N/A	N/A	N/A	10

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	NA	N/A	N/A	N/A	
Common Areas:	Battery Smoke detectors	N/A	N/A	N/A	
Apparatus Bay	N/A	N/A	N/A	N/A	
Firefighters' Quarters	Battery powered smoke and carbon monoxide detectors	N/A	N/A	N/A	
Electric Service:	N/A	N/A	N/A	N/A	
Toilets:	N/A	N/A	N/A	N/A	
Sprinkler Service	N/A	N/A	N/A	N/A	

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N/A – Not applicable/Not available
M – Missing

Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Basement	N/A	N/A	N/A	N/A	
Municipal Notification	N/A	N/A	N/A	N/A	
Knox Box	N/A	N/A	N/A	N/A	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

4. Electric service upgrade needed. Recommend confirmation of all loads with updated panelboard labeling and circuit directories. Service and distribution equipment original to building; recommend operation of circuit breakers to confirm proper function, examination and possible retourque of feeder connections. Recommend placard for emergency power service connection and confirmation of all loads with updated panelboard labeling and circuit directories.
5. Consider adapting generator to dual fuel use to connect to underground natural gas and eliminate propane deliveries.
6. Distribution system appears original to structure and in serviceable shape. Replacement and expansion will be needed for any additions or updates. Some open outlets were observed requiring blank plates.
7. Most locations need more receptacle coverage as evidenced by use of plug strips. Recommend GFI protection for apparatus bay and toilet areas. Most receptacles observed were of the grounding type.
8. Lighting appears to be adequate but of advanced age; High output fluorescent with half switching by automatic controls in apparatus bays recommended for energy savings. Recommend automatic light switches at fire fighters quarters, lacks automatic controls throughout.
9. Exterior lighting provided at door locations and apparatus ramps. Exit discharge lighting for emergency egress is provided by emergency generator connection of lighting.
10. Communications systems are limited to cable TV and voice and data outlets. Fire dispatch monitoring speakers installed throughout. Staff advised new updates are being installed. Removal of all defunct equipment, systems and wiring recommended.
11. All lighting is connected to emergency generator. Exit signage is limited and of the non-illuminated type. There are no emergency battery units in the building.
12. Addition of emergency lighting is recommended for safety of firefighters during generator transfer and/or backup during a generator outage
13. Installation of a fire alarm system in building is recommended for occupant and property protection. Hard wired systems will eliminate battery replacements for smoke and carbon monoxide detectors.

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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment, step at entrance

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	WD, Step at entrance	Not ADA	3
Exterior/Egress Doors:	3'-0"	WD	Not ADA	3
Signage:				

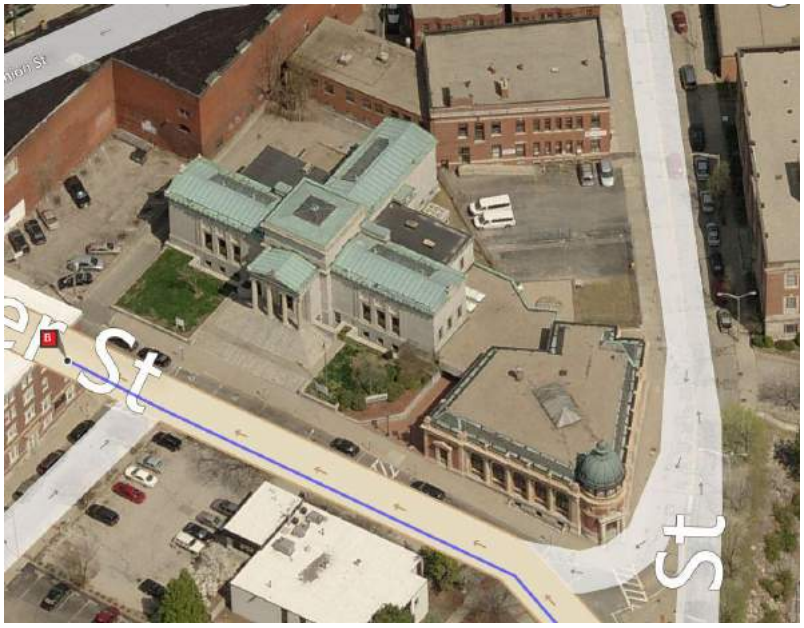
Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –		WD	Not ADA	3
Offices:		WD	Not ADA	3
Corridor:				
Stairs:		WD	Not ADA	3
Toilets:		WD	Not ADA	3

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:		WD	Not ADA	4
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Not ADA, no grab bars, no turning radius		4
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT



The neo-classical grey granite Sayles Library was the original central library for Pawtucket. In 1980 it was connected to another historic building, the red brick and limestone Pawtucket Post Office (now called the Burns Library) to create the current building. The Library is entered through a one story connecting flat roofed structure built in 1980.

GENERAL INFORMATION

Name of Facility:	**DEBORAH SAYLES LIBRARY + GERALD S. BURNS LIBRARY**	
Address:	13 Summer Street Pawtucket, Rhode Island	
Name of Owner:	City of Pawtucket	
Building Use Group:		
Use Description:	Central Public Library	
Years in Service:	111	
Year Constructed:	1899-02 - Sayles	Designer:
Additions:	1896-99 - Burns	Designer:
Existing Drawings:		
Gross Square Feet:	25,005 (Sayles) + 15,906 (Burns) = 40,911	

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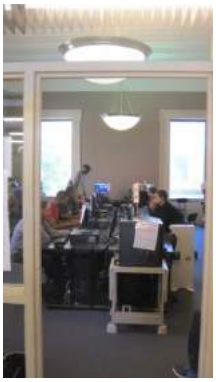
PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Provide three additional computer rooms per floor, one each floor for children, adults and seniors.
2. Create access to a functioning service entrance to allow efficient trash removal.
3. Provide 4 additional classroom spaces.
4. Create Help Desks on every floor.



SITE

1. Conduct an investigation to determine where roof runoff is collected and removed.
2. Conduct a similar investigation of window wells and area drains.
3. Reset granite curbing at significant gaps between curbing and concrete pavement.

STRUCTURE

1. Replace all copper and built up roofs.
2. Correct water infiltration in the building. If not corrected, this infiltration will eventually have an adverse impact on the building structure.

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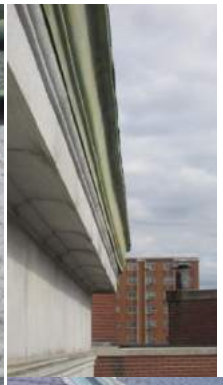
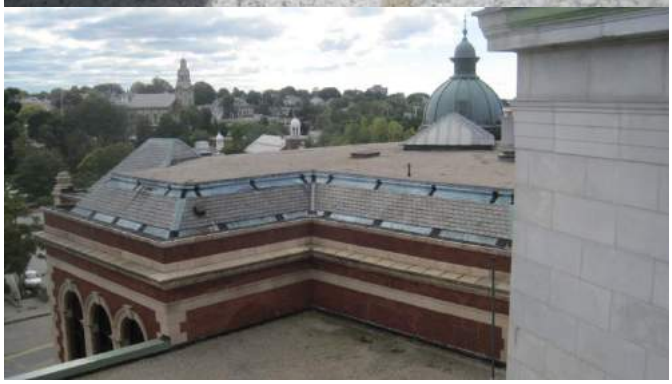
EXTERIOR ENVELOPE

1. Inspect and assess Sayles copper roof. Remove and replace if required.
2. Remove and replace Sayles flat roof, at the end of its useful life.
3. Check Sayles roof drains for obstructions. Repair as necessary.
4. Burns: Replace flat built-up roof, re-seal all joints at copper flashing and terracotta cornice.
5. Remove and replace flat roof at entrance connector building.

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INTERIOR FINISHES

1. Perform forensic investigation to discover source of chronic leak at north wall.
2. Repair damaged plaster at north wall.
3. Replace millwork at main circulation desk.
4. Replace cracked structural glass tile at north stacks.

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout.
2. Replace all public faucets with new sensor or metered type low flow faucets and with wing blade handles at all ADA lavatories.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

Condition Key Criteria:
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HEATING & VENTILATING SYSTEMS

Sayles Library

1. Replace the chiller's remote air cooled condensing unit.
2. Modify the outdoor intake and relief systems to the AHU to allow airside economizer.
3. Provide a VFD to the Air handler fan.
4. Provide VAV dampers to the various zones.
5. Provide DDC control for the system. Provide temperature and pressure sensors as necessary.
6. On partial cooling conditions reduce the total volume of air delivered and deliver the air at a constant colder temperature.
7. Provide humidistat's in critical areas.
8. Provide ductless split heat pumps to the upper mezzanine levels of the stacks.

Burns Library

1. Replace the three existing single zone AHUs with a single unit with variable speed fan(s), airside economizer, preheat coil and chilled water coil.
2. Provide at least one VAV terminal to each of the three previous AHU's downstream duct distribution. VAV terminals to have re-heat.
3. VAV cooling CFM to be determined by both space temperature and space humidity. Maintain cooling supply air temperature at 55° to provide sufficient dehumidification.

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ELECTRICAL

1. Service and distribution equipment of advanced age; perform operation of fused switches to confirm proper function, examination and possible re-torque of feeder connections, confirmation of all loads with updated labeling and circuit directories.
2. Provide placard for emergency generator service procedures and updated labeling of all equipment.
3. Replace reference desk and corridor area lighting with lighting similar to pendants installed in the Computer Room. Increase illumination at check out area.
4. Provide emergency bypass relays to turn on emergency lighting in off mode during power failure is required by RI Fire Code.
5. More horn/strobe locations are needed for occupant notification in case of emergency.

PROVISIONS FOR ACCESSIBILITY

1. Replace main check-out desk with ADA compliant desk.

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N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	There is a need for more classroom spaces. Additional computer rooms are required, one each floor for children, adults and seniors. (Seniors should be on the first floor).
Room Qualities (Fit-up):	There is a need for more electrical power for staff and public computer use. Help desks are needed throughout the library, on every floor. Computers should be distributed through the library. Doing so will eliminate the need for seniors to use the elevator. The elevator doors hit visitors and staff when they close.
External Adjacencies:	Trash removal is a problem because of the lack of access to a proper service entrance.
Internal Adjacencies:	The adult reference desk needs to be on the first floor closer to the stair. In this location staff can also welcome all visitors.
Remarks:	Repurposing of rooms is ongoing. Circulation is growing but not in the number of books. Rather, the collection is changing to fit the new population, transforming from the classics to more pragmatic basic text on English as a second language, getting a job, working on computers and the net. The building is not organized to minimize staff size. Potential theft must be controlled by staff at the circulation desk. A third of the collection is now DVDs and CDs

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N/A – Not applicable/Not available
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SITE DATA

	Description
Land Used:	0.96 Acres (includes rented parking lot)
Lot Area:	Comprised of 2 lots totaling 0.84 acres (Plat 43, Lots 161 & 418)
Topography:	The site slopes up steeply in the west-northwest direction from the intersection of Summer Street and High Street (from elevation 60 at intersection to 82 at Library) and then slopes back down behind the building in the northwest corner of the site. The site slopes up gently north along High Street from the intersection of Summer Street and High Street, and then continues to slope up on the north side of the Annex Bldg. Multiple retaining walls and stepped areas exist throughout the site.
Wetlands:	No apparent wetlands within 500 feet of the site.

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Size unknown – services tie into 10" main on Summer Street or 18" main on High Street	N/A	1980 Library Renovations Site Plan	80's	N/A
Water:	2" service for Annex Bldg	Copper?	1980 Library Renovations Site Plan	80's	N/A
	Size unknown for Library Bldg	N/A	1980 Library Renovations Site Plan	N/A	N/A
	12" water mains in Summer Street and in High Street	Iron?	1980 Library Renovations Site Plan	N/A	N/A
Electricity:	Size unknown - Underground electric either from Summer Street or from utility pole in north corner of site.	Conduit	1980 Library Renovations Site Plan & Field Observations	N/A	N/A
Gas:	Size unknown Gates observed	N/A	1980 Library Renovations Site Plan & Site Visit	N/A	N/A
Oil/Fuel Tank:	Underground propane tank (size unknown)	N/A	Site Visit and 1980 Library Renovations Site Plan	80's?	N/A Tank feeds adjacent Generator
Storm Water Management:	Varies Pipes – 4", 6" Other Structure sizes vary	Structures: Yard Drains, catch basins, dry wells, curb inlets Pipes: Cast Iron	Site Visit and 1980 Library Renovations Site Plan	80's, other	

	Type:	Source	Date Installed	Conditions
Site Lighting:	Standard Street Light poles along High Street and Summer Street; Decorative metal light poles at Bldg entrance; Misc. building	Site Visit	N/A	8 See Electrical for more info

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N/A – Not applicable/Not available
M – Missing

	Type:	Source	Date Installed	Conditions
	mounted fixtures			
Fire Hydrant:	One hydrant on High Street One hydrant on Summer Street	Site Visit Site Visit	N/A N/A	High St – 8 Summer St - 6

	# Spaces	Material	Date Installed	Conditions
Parking Lot:	14 Spaces; 5,400 SF	Bit. Pavement	N/A	8; Striping starting to fade.
Vehicle Storage	One garage/loading bay at north corner of Library	See architectural	1980's	See architectural
Loading & Service	North - 4,500 SF Used for deliveries & overflow/employee parking East Side of Annex – 950 SF Used for book mobile and deliveries	Bit. Pavement Bit. Pavement	N/A	3; (Portion of drive right off of Summer Street in good condition; Remaining area in poor condition) 8
Signage:	Adequate around site	Site Visit	N/A	8
Trash Management Area:	4 Brown Barrels on north side of Library	Bit. Pavement	N/A	8

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PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:	Summer St. Parking Lot: 20' Summer St. access drive: 12' Summer Street Crosswalk: 6' Summer Street in front of Sayles Bldg: 2.5' Crosswalk at Summer Street/High Street Int.: 3' High Street delivery: 31'	Concrete; Condition 8 Bit. Pavement; Condition 8 Concrete; Condition 8 Concrete; Condition 7 – Does not appear to meet ADA code for width. Concrete; Condition 8 Concrete; Condition 8
Walkways:	Front entrance: 11' – 28' Summer Street: 12' High Street: 8'	Brick; Condition 8 - Repair cracks as needed; Walkway slope appears to exceed 5% allowable by ADA in one area. Concrete; Condition 7/8 Repair concrete panels as necessary Concrete; Condition 7 Several concrete panels are cracked - repair as necessary
Ramps:	None	N/A
Parking:	2 accessible spaces provided on Summer Street (9'x18'); No accessible spaces in parking lot	Bit. Pavement Condition: 8

SITE NOTES

1. Stormwater runoff in front entrance walkway is collected via two yard drains that are routed under entrance addition to the rear of the building and then into the 15" RCP Drain line in High Street.
2. Stormwater runoff from the loading/service area north of the library building and from the garage roof are collected via a leaching catch basin and another catch basin at the area's lowpoint. Uncertain where catch basin at lowpoint is routed to. No complaints about flooding/ponding in the area.
3. Stormwater runoff from parking Lot, Summer Street sidewalk, and area in front of main Library building flows south into Summer Street where it is collected via curb inlets and routed to High Street drainage system.
4. Uncertain where roof runoff is collected and routed to. DPW noted that roof drains have been leaking. Further evaluation required.
5. Three window wells were observed (two at the Sayles Bldg and one at the Burns Bldg) that contained small area drains. DPW noted that some moisture problems have occurred around some of the window wells. Further evaluation of window wells and area drains required.
6. Overgrown vines/vegetation observed adjacent to Library sign on top of retaining wall.
7. Retaining walls in appear to be in good overall condition. One crack observed at wall between Summer Street access drive and Parking Lot. On parking lot side side of this retaining wall, there is significant deterioration to the brick facade. Several bricks are missing and mortar is exposed in many areas. This does not, however, affect the structural integrity of the concrete wall that is providing the retaining measures.
8. Gaps observed between granite curbing and sections of sidewalk observed, particularly on along High Street. Resetting of curb is recommended where significant gaps exist.

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BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete and Stone		8
Vertical Support Systems:	Steel columns		8
Floor Framing System:			
Ground:	Slab on grade		8
Upper Floors:	Wood joists; open web bar joists, steel girders	There are some cracked glass floor panels in the mezzanine, which should be replaced, and watched.	8
Roof Framing System:	Wood joists; open web bar joists, steel girders		8
Lateral Force Resisting System:	Masonry walls (presumed)	Other than the masonry walls, there appears to be no deliberate lateral force resisting system	8

STRUCTURE NOTES

1. There are some obvious signs of water infiltration in the building. Excessive water infiltration could have an adverse impact on the building structure. Copper and built up roofs need replacement. Refer to architectural section for more information.

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Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Sayles-Granite, Masonry back-up Burns-Face brick, limestone, masonry back-up	Re-point south and west facades Re-point masonry, clean and repair limestone	6 5
Exterior Trim/Fascia:	Copper		3
Sloped Roof Assembly:	Copper		3
Flat Roof Assembly:	Sayles-EPDM Burns- Replace flat built-up roof Re-roof connector building		3 3 3
Windows:	Sayles-Insulating glass, fixed alum. frames Burns-Insulating glass, fixed alum. frames		5 5
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:	Sayles-Aluminum, Insulating glass Burns-Aluminum, Insulating glass		5 5
Interior:	Aluminum, Wood		5
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Sayles-Exterior granite in generally good condition, joints on north and east facades have new sealant with surface application of sand to simulate appearance of original mortar joints. South and west facades require similar re-pointing
2. Sayles-Copper roof is over 100 years old. Chronic leak at north wall has allowed water into interior. Wall gets wet depending on direction of driven rain. Copper roof should receive careful inspection to assess areas to be repaired or replaced. Owner reports that leak continues despite repairs to skylights and re-pointing masonry. This underscores need to inspect and repair all copper.
3. Sayles-Flat roof areas: no leaks observed, but roof may be the end of useful life.
4. Sayles-Gutters at west segment of flat roof were full indicating roof drain blockage. Owner was advised. Roof drains should be checked for obstructions.
5. Burns- Flat built-up roof should be replaced. Check and re-seal all joints at copper flashing and terra cotta cornice.
6. Replace flat roof at entrance connector building, over 20 years old.

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Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	PLAS	CPT	ACT	5	2	5	
Lobby:	PLAS	CPT	ACT/PLAS	5	2	4	
Corridors:	PLAS	CPT	ACT/PLAS	5	2	5	
Stairs:	PLAS	RBR	ACT/PLAS	4	4	4	
Toilets:	PLAS	CT	ACT/PLAS	3	4	4	
Service/Mechanical:	CONC	CONC	N/A				

INTERIOR FINISHES NOTES

1. Interior finishes are, in general, very old and tired. Building is generally well cared-for, but suffers from very heavy use. With closure of local state employment office, library public computers now used by people looking for jobs. During cold months, some of the homeless spend their days in the library.
2. Chronic leaks at north wall have pushed plaster and paint off walls, moisture threatens books, some stack areas not usable. Recommend forensic investigation to determine source.
3. Interior materials and conditions rating above are for both Sayles and Burns.
4. Millwork at main circulation desk should be replaced.
5. Floors of north stacks at Sayles constructed of structural glass tiles, 24”x24”. One of these translucent glass floor tiles has cracked and should be replaced.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

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PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	2"	2"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to have been replaced within 5 years.	
Gas:	6"	N/A	Yes	Low Pressure	Black Steel	NGRID	M	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	Backflow preventer present
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 140 degrees F.
Sanitary Waste & Vent:	Cast Iron / 8	N/A / 8	
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on roof levels. Another option is to dedicate the secondary system to discharge to day light.
Gas:	Black steel / 8	None Required / 9	With internal hermetically sealed Spencer gas booster package.
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Boiler to storage tank packaged system / Natural Gas (Low Pressure)	Boiler 5+ years.		Dom. Water Boiler appears to be 5 plus years old. Appears to be fairly new.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	None present
Domestic Water Booster Pump:	N/A			None present
Interior Kitchen Grease Trap:	N/A			None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor or wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types	Refer to architectural comments	3	Some fixtures appear to be original and above the 1.6

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		No / No			GPF code maximum requirements.
Urinal:	Floor and wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	3	Urinal full height wall types are no longer code compliant under new construction threshold.
Lavatory:	Wall hung & countertop types	No / No	None	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall hung / Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	3	Several with threaded connections require integral vacuum breakers
Showers:	N/A				No showers present

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities.
Wall Hydrant:	Appears to be sufficient quantities.
Floor Drain:	Not present in rest rooms. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical room. Portable emergency eye wall hung to comply.

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PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout.
2. Priority 2: Recommend replacing all public faucets with new sensor or metered type low flow faucets and with wing blade handles at all ADA lavatories (Refer to architectural assessment for all required locations).
3. Priority 3: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 4: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets to avoid cross contamination.
5. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.

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AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	2”	Copper	Basement boiler room	No Data	10 plus years old	8
Backflow Prevention:	2”	Steel	Basement	N/A	10 plus years old	8

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	N/A	N/A	N/A	N/A	

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	Wet	Uprights	Boiler room	Unk.	8
Fire Department Connections:	Siamese 2½” x 2½”				8
Exterior:	N/A				
Interior:	Yes				
Shut-Off Valves:	Yes		Yes	Unk.	8
Pre-Action Controls:	N/A				

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M – Missing

HEATING & VENTILATING SYSTEMS – SAYLES LIBRARY

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Condensing	AO Smith Legend 2000	Recent	9
Cooling Equipment #1:	Electric	Split air Cooled Chiller	Dunham Bush ZR250KG-TWG-522	Circa 2008	9
Exhaust Equipment #1:	Electric	Condensing Unit	Unknown	Old	2 See Comment 1

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Equipment:	Various	CI radiators Duct Ht Coil	Unknown	HW	Original	7 8
Cooling Distribution Equipment:	See AHU below					
Air Distribution Equipment:	10,000± CFM	AHU	Trane MCC 13021UAODO UA SN: K05c38364	Electric Fan CW Cooling No Heat Coil	Recent	8 See Comments 2 , 3 & 5

Terminal Equipment	Type	Manufacturer	Controls	Date of Installation	Conditions
Typical Classrooms:	3 zones CV w/ HW Reheat	Unknown	DDC	Recent	8
	Various floor & ceiling diffusers			Old	6 See Comment 4

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment	4500 Estimate	AHU fixed Louver (36x40)				6 See Comment 3

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. While the chiller compressor & evaporator barrel located in the basement mechanical room were replaced in 2008 the exterior existing condensing unit was retained. This unit is in poor condition and needs replacement. Without a reliable condensing unit the entire cooling system is at risk.

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2. Air Distribution Constant volume system. There is no direct heat or ventilation to upper level of stacks.
3. With some relocating of the boiler flu a larger louver could be installed for potential free cooling.
4. There is inadequate cooling to the upper levels which due to stratification are often very hot.
5. Dehumidification is often a problem. With CV unit there is less ability to dehumidify without excessive reheat. This is due to the warmer and thus moister air leaving the air handler under less than full load conditions. Portable dehumidifiers have been used in some areas with questionable results. Attention to this issue is required.

RECOMMENDATIONS

- Replace the chiller's remote air cooled condensing unit.
- Modify the outdoor intake and relief systems to the AHU to allow as much airside economizer as possible.
- Provide a VFD to the Air handler fan.
    - Provide VAV dampers to the various zones that will respond to space temperature requirements.
    - Provide DDC control for the system. Provide temperature and pressure sensors as necessary to control the AHU and distribution.
    - On partial cooling conditions reduce the total volume of air delivered and deliver the air at a constant colder temperature. The colder supply air will be drier than the previous warmer but higher volume air.
    - Provide humidistat's in critical areas. If necessary reduce the supply air temperature further with reheat to control humidity.
- Provide ductless split heat pumps to the upper mezzanine levels of the stacks.

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HEATING & VENTILATING SYSTEMS – BURNS LIBRARY

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Condensing HW Boilers (2)	Locinvar Model PGK 70004	2008±	9
Cooling Equipment #1:	Electric	Packaged Air cooled	Dunham Bush Model CH0013601BR007	2008	9
Exhaust Equipment #1:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Basement 1st Floor 2nd Floor	CFM 3200± 4000± 4000±	Single Zone AHUs	Dunham Bush VAH 32 VAH 40 VAH 40	Hot Water	Old	3 See Comments
Cooling Distribution Equipment:		Single zone AHUs		Chilled Water		
Perimeter Heating Equipment:		Convectors CI radiators				7

Terminal Equipment	Type	Manufacturer	Controls	Date of Installation	Conditions
Toilets:	Diffusers				

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment:	15 -20% AHU total	Via AHUs		Fixed OA Fraction		

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

- The primary heating and cooling are supplied by old constant volume single zone AHUS located in the basement. The constant volume system presents problems with balancing either heating or cooling. Dehumidification in the basement function areas and the building in general has been an ongoing issue.

RECOMMENDATIONS

- Replace the three existing single zone AHUs with a single unit with variable speed fan(s), airside economizer, preheat coil and chilled water coil.
- Provide at least one VAV terminal to each of the three previous AHU's downstream duct distribution. VAV terminals to have reheat.

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- VAV cooling CFM to be determined by both space temperature and space humidity.
- Cooling supply air temperature to be maintained at approximately 55° to provide sufficient dehumidification even if it means terminal reheat is necessary.

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ELECTRICAL - COOK SAYLES LIBRARY/BURNS LIBRARY ANNEX

	Rating	Voltage	Metering	Date of Installation	Conditions
Service:	1200amps	208/120v 3ph	Underground	5	

Transformer:	Pole		NGrid		

				Condition	Notes
Emergency Generator:	Life Safety/ Natural Gas	208/120V,3ph	Automatic	4	

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Fused Switch	Fused Switch Distribution Panel, Circuit breaker panelboards	Metal clad cable, conduit and wire	5	1

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		5	2
Lobby:	Duplex	Grounding		5	2
Corridor:	Duplex	Grounding		5	2
Toilets:	Duplex	Grounding	GFI	5	2
Book Stack:	Single	Grounding	Floor	5	2

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	5	3
Lobby:	CFL	Decorative Pendant	5	3
Reading Area:	Fluorescent	Lensed	5	3
Book Stacks Area:	Fluorescent	Baffled Stacklight, pendant globes, indirect uplight	5	3
Toilets:	Fluorescent	Lensed	5	3
Book Checkout Area:	Fluorescent	Lensed, downlights	5	3
Computer Room:	HID	Decorative indirect	7	3
Toilets:	Fluorescent	Lensed	5	3
Corridors:	CFL	Lensed wraparound Downlights	5	3
Lighting Controls:	Manual/automatic	Switches, wall occupancy sensors, photocells	5	
Emergency Bypass Relays	NA			3

Site Lighting	Type	Style	Condition	Notes
Parking:	LED	Pole floods	5	
Walkways:	HID	Bollard, Wall	5	
Building Entrances:	CFL	Recessed in Soffit	5	
Building Egresses	CFL	Wall	5	

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Site Lighting	Type		Style	Condition	Notes
Grounds	LED		Pole floods	5	
Vehicle Parking	HID		Pole flood	5	
Security System		Locations			
CCTV:	N/A				
Door Access Controls:	N/A				
Detection Devices:	IR			5	4

Communications System		Locations	Devices		
Master Clock / Program:	N/A				5
PA System:	N/A				5
Cable TV	N/A				5

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D			5	5
Computer Room Area:	T/D			5	5
Lobby:	T/D			5	5
Teen Center:	T/D			5	5

Local Sound Systems	System Devices	Type			
	N/A				

	Type	Style	Condition	Notes
Emergency Lighting:	Emergency Generator	Installed in selected locations	5	6
Exit Lighting:	LED	Internally illuminated	5	

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Addressable	Notifier	Horn/Strobes	7	7
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	NA	Limited HS		7	
Corridors:	NA	Limited HS	At egresses	7	
Electric Service:	SD	HS		7	
Toilets:	HD	Limited HS		7	
Sprinkler Service	NA	Tamper and Flow switches		7	
Air Handling Units	NA	Duct smoke Detectors?		7	
Municipal Notification			Radio Maser Box	7	
Knox Box			Yes	7	

HS – Horn/Strobe, SD – Smoke Detector, DSD-Duct Mounted Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/Data

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ELECTRICAL NOTES

1. Service and distribution equipment of advanced age; recommend operation of fused switches to confirm proper function, examination and possible re-torque of feeder connections, confirmation of all loads with updated labeling and circuit directories. Recommend placard for emergency generator service procedures and updated labeling of all equipment.
2. Most receptacle locations observed were of the grounding type.
3. Lighting appears to be adequate and well maintained. Lighting was of various ages, suggesting numerous and limited updates. A replacement of reference desk and corridor area lighting with lighting having a more historic feel such as the pendants installed in the Computer Room could improve lighting levels in main reading room and corridors while enhancing the historic character of building. Book check out area lighting needs improvement for lighting level and more welcoming atmosphere. Recommend the use of photo controls to reduce lighting operation during day under skylights to 50% for energy savings. Recommend increasing exterior lighting level at main entry to improve visibility from the street and draw in patrons. Addition of emergency bypass relays to turn on emergency lighting in off mode during power failure is required by RI Fire Code.
4. Intrusion alarm system consists of door contacts and motion detectors in selected locations.
5. Communications systems are limited to cable TV and voice and data outlets. Additional power outlets are needed in Teen Center as use of plug strips is quite extensive.
6. Addition of emergency bypass relays to turn on emergency lighting in off mode during power failure is required by RI Fire Code.
7. More horn/strobe locations are needed to improve occupant notification.

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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Aluminum, Glass	Automatic	7
Exterior/Egress Doors:	3'-0"	Aluminum, Glass	P/Pull	7
Signage:				

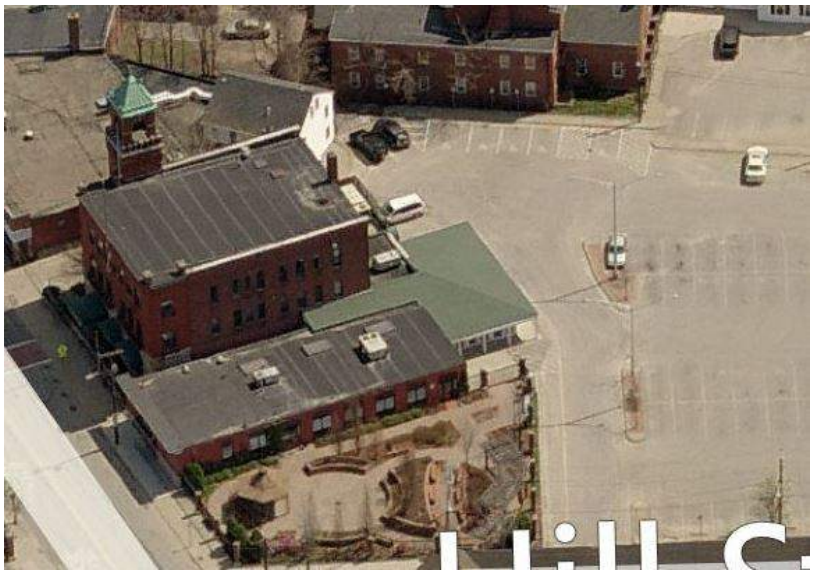
Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:	3'-0"	CPT/CT	Automatic	7
Interior Doorways:	3'-0"	WD/HM		5
Offices:	3'-0"	WD/HM		5
Corridor:		CPT/VCT		4
Stairs:		CPT/VCT/WD		5
Toilets:				

	Size			Conditions
Vertical Access: (Elevators/Lifts)	Dover Cab	Requires new controller, fixtures, wiring, power unit plus possible smoke detector upgrades	Est. $65,000	

	Width	Floor Surface	Handrail/ Guard Heights	Conditions
Stairways:	Varies	CPT/VCT/WD	36"	4
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	ADA Accessible, Grab Bars, Sinks, Turning	7	7
Tables & Seating	Modify Main Check-out Desk		4
Drinking Fountains:	ADA Accessible		7
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT



The 3-story Senior Center originally served as a fire station and was converted in 1980. The adjacent Senior Day Care Center originally was a bar and was converted in 1989. The two buildings are connected by an enclosed entryway constructed in 1989. They have separate MEP systems.

GENERAL INFORMATION

Name of Facility:	**SENIOR CENTER/NEW HORIZONS DAY CARE**	
Address:	420 Main Street Pawtucket, Rhode Island	
Name of Owner:	City of Pawtucket	
Building Use Group:		
Use Description:	Senior Citizens Social Service Center	
Years in Service:		
Year Constructed:	1896-Senior 1920-Day Care	Designer:
Renovations:	1980-Senior 1989-Day Care	Designer:
Existing Drawings:		
Gross Square Feet:	15,133-Senior Center/5,085-Senior Day Care	

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

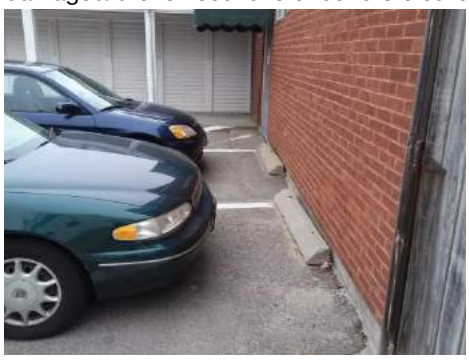
PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Increase size of computer lab and first floor sitting area.
2. Provide acoustic treatment in the solarium to allow its use.

SITE

1. Reconfigure accessible parking spaces to meet ADA code. Add crosswalk striping in parking lot to provide safe passage for pedestrians.
2. Move all parking space wheel stops to at least 4' away from building.
3. Re-grade pavement to correct ponding along easternmost section of parking.
4. Repair or replace damaged/broken sections of concrete curb.



Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

STRUCTURE

1. Re-point areas of brick masonry, particularly at corner tower.

EXTERIOR ENVELOPE

1. Repair and re-point brick on upper stair tower.
2. Replace all roofs, gutters and downspouts
3. Repair damage to arched window casings, first floor facing Main Street

INTERIOR FINISHES

1. Repair interior water damage at first floor facing Main Street.
2. Re-locate illegal air duct at south stair of Senior Center.
3. Install acoustic panels at south entry lobby ceiling.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Replacing all public faucets with new sensor or metered type low flow faucets.
3. Insulate all piping below lavatories, provide ADA lavatories with offset drain strainers.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Replace the existing roof top units (RTUs).
2. Relocate the RTU serving the lower floor and find an alternate route for the main duct (not permitted to run in the stair well).
3. Repair/replace the baseboard finned heat. Use commercial grade cover to prevent damage. A Runtal style baseboard unit is also acceptable.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

1. Provide label at temporary generator connection.
2. Relocate fused switch out of stairway to floor below; improve labeling.
3. Correct hazardous situation at adult day care (non-interlocked cover at service switch could allow work on energized switch).
4. Review and test all service and distribution equipment, evidence of water infiltration by streaking on service equipment covers;
5. Operate fused switches to confirm proper function, examination and possible re-torque of feeder connections, confirmation of all loads with updated labeling and circuit directories.
6. Provide placard for temp generator service procedures and update labeling of all equipment.
7. Update existing fire alarm to addressable type with expanded manual station coverage, audio/visual notification and automatic detector coverage above and below ceilings.
8. Add rescue assistance intercoms and signage in stairs at currently designated locations

PROVISIONS FOR ACCESSIBILITY

1. Will verify pending receipt of accurate building plans.

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	Undersized spaces include the computer lab and first floor sitting area.
Room Quantity:	The clinic space is no longer used.
Room Qualities (Fit-up):	Acoustics in the solarium frequently prevent it from being used.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	Use of the facility is high, over 150 seniors per day. The solarium is underused. Senior activities take place on the first floor. The staff works closely with Memorial Hospital in the coordination of programs for seniors. There is a demand for more programs. Funding for programs has decreased.
Notes	Consider renovating the existing clinic space for use as a health, wellness and fitness center with equipment to support a class size of 12 to 15 people. Finding a new space and location for the conference room, which is within the clinic, must be a part of such a renovation.

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	1.53 Acres (included parking lot and sidewalks)
Lot Area:	0.44 Acres
Topography:	Slopes north to south (2%-4% on average)
Wetlands:	None within 500 ft

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Ties into City system	N/A	N/A	N/A	N/A
Water:	New Horizons: 2” Senior Center: 2”?	Copper Copper	Plumbing Eng. Plumbing Eng.	N/A N/A	N/A N/A
Electricity:	Underground	N/A	Field Visit	N/A	N/A
Gas:	6”	Steel?	Plumbing Eng.	N/A	N/A
Oil Tank:	Unknown	N/A	N/A	N/A	N/A
Stormwater Management:					
Roof	Portions of roof runoff collected in downspouts & routed underground; Other portions of roof collected in downspouts that discharge externally; Parking lot runoff flows overland in southerly direction to Church Street.	Aluminum and PVC gutters/downspouts Aluminum and PVC gutters/downspouts N/A	Site Visit Site Visit Site Visit	N/A N/A N/A	8 8 N/A
Parking Lot					
Service Areas:	None designated	Bit. Pavement	Site Visit	N/A	7
Parking Lot:	41,800 SF	Bit. Pavement	Site Visit / Aerial	N/A	7

	Type:	Source	Date Installed	Conditions
Site Lighting:				
Front of Building (Main St.)	One (1) pole mounted street light	Site Visit	N/A	8
Parking Lot	Parking Lot contains four (4) pole mounted dual lamp fixtures.	Site Visit	N/A	8
	There are two building mounted flood lights on rear side of building as well	Site Visit	N/A	N/A (See electrical)
Fire Hydrant:	One at north end of Hill Street and one at south end of Hill Street Rear portion of building is beyond 300 feet of hydrant	Site Visit	N/A	8

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	# Spaces	Material	Date Installed	Conditions
Parking Lot:	114 Total 6 Accessible Spaces 108 Standard Spaces	Bit. Pavement	N/A	7
Public Access Area:		South of Building: Bit. Pavement North of Building: Concrete West Courtyard: Granular Bit. Pave	N/A N/A N/A	7 8
Vehicle Storage	N/A	N/A	N/A	N/A
Loading & Service	None designated	Bit. Pavement	N/A	7
Signage:	Adequate for parking, circulation	Alum sign with steel post,	N/A	8
Trash Management Area:	6' X 8' SE corner of Bldg	Concrete Pad with wood fence	N/A	8

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	Conditions
Curb Cuts:	Main Street Alley – 13 ft Hill Street Entrance – 25 ft	Concrete / Bit. Pavement Concrete	7 7
Walkways:	Main Street: 3' – 9' Hill Street: 6.5'	Concrete Concrete	7 7
Ramps:	Senior Center Front: 4' New Horizons Front: 3.5'	Concrete Concrete	8 10
Parking:	Accessible Spaces (4) 9'W x 16'L (2) 8.5'W x 18'L Standard Spaces 9'x18' (typ.)	Bit. Pavement Bit. Pavement	 7 7

SITE NOTES

1. Ponding observed and noted by director at easternmost parking spaces south of accessible parking spaces. Ponding is due to lowpoint with no catch basin. Slip hazard exists when ponding freezes in winter.
2. Wheel stops have been pushed beyond parking spaces and into the sidewalk on westernmost row of parking along Hill Street.
3. Striping/configuration of accessible parking spaces does not meet ADA code.
4. No accessible sidewalk curb ramp is provided on north side crosswalk at Main Street.
5. Bituminous pavement in parking lot contains mild to moderate transverse and longitudinal cracks. Wearing surface show some deterioration. Pavement is still serviceable, but re-paving should be considered in 5-7 years.
6. Evidence of ponding against building observed at southwest corner of the building (at assigned parking space adjacent to courtyard).
7. Sidewalk along Hill Street contains concrete panels that have heaved & settled near trees, creating tripping hazards.
8. Sidewalk in front of New Horizons Building is missing portions of two concrete panels.
9. Minor cracks and settlement observed in sidewalk adjacent to front entrance ramp (Main Street)

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

10. The southwest portion of the Senior Center is approximately 300'-320' away from nearest hydrants. Consultation with Fire Department is recommended to determine if distance is too far and whether an additional hydrant is desired.
11. DPW noted that retaining walls should be evaluated. Courtyard walls appeared to be in good condition from a distance, but close up inspection was not performed.

RECOMMENDATIONS

1. Reconfigure accessible parking spaces to meet ADA code. Add crosswalk striping in parking lot to provide safe passage for pedestrians.
2. Wheel stops for accessible parking spaces against the building should be moved away from the building by 4' to protect building.
3. Wheel stops for westernmost row of parking along Hill Street should be move back into their correct locations to eliminate tripping hazards on sidewalk.
4. Re-grade pavement and provide relief for area of pavement along easternmost section of parking that is ponding.
5. Repair or replace damaged/broken sections of concrete curb.
6. Provide accessible curb ramp on north end of crosswalk in Main Street. Repair surrounding sidewalk on north side of Main Street.
7. Repair concrete sidewalk patch in front of New Horizons building (Main Street).

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Concrete and stone walls		8
Vertical Support Systems:	Load bearing masonry walls; steel columns.		8
Floor Framing System:	Wood		8
Ground:	Wood joist/beams; steel girders. Concrete slab with steel beams above basement mechanical room; likely slab on grab at areas with no basement		
Upper Floors:	Wood joists		8
Roof Framing System:	Wood joists		8
Lateral Force Resisting System:	Load bearing masonry walls with limited lateral force resisting capability.		8

STRUCTURE NOTES

1. Areas of brick masonry show signs of needing repointing. This was evident in unoccupied tower where the dried mortar is being washed through the walls and collecting on the a platform.

Condition Key Criteria:

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2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	SC-Granite base, brick veneer, solid masonry back-up	Re-point brick	4
	DC-Solid brick wall, painted	Paint peeling below window jambs, water infiltration	3
Exterior Trim/Fascia:	SC-Stone trim, copper flashing	Inspect, repair	4
	Aluminum cap flashing	Inspect, repair	4
Sloped Roof Assembly:			
Flat Roof Assembly:	SC-Rolled roofing (modified bitumen?)	Low slope, multiple leaks reported	1
	DC-EPDM, rolled roofing	Flat, multiple leaks reported	1
Windows:	SC-Aluminum, double hung, thermal	Multiple seal failure	2
	DC-Aluminum, fixed, awning, thermal	Multiple seal failure	2
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:	SC-Aluminum, glazed		5
	DC-Aluminum, glazed		5
Interior:	SC-Wood		6
	DC-Wood		6
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Water damage to arched window casings, first floor facing Main Street
2. Roof leaking above Main Street stair tower. Possible cause, water draining off turret roof, hitting wall and damaging brick mortar, Repair and re-point brick on upper stair tower.
3. Replace all roofs, gutters and downspouts

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB	CPT	ACT	5	4	4	
Lobby:	GWB	VCT	ACT	4	5	4	
Corridors:	GWB	CPT	ACT	5	3	5	
Stairs:	GWB	RBR	ACT	5	5	4	Illegal
Toilets:	GWB	QT	ACT	4	5	4	
Service/Mechanical:	BRK	CONC	N/A	5	5	N/A	
Activities	GWB	VCT	ACT	6	7	6	
Conference	GWB	CPT	ACT	6	4	6	
Exam	GWB	VCT	ACT	6	6	6	
Dining	GWB	VCT	ACT	6	6	6	
Warming Kitchen	GWB	QT	GWB	6	6	6	

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB	CPT	ACT	6	7	7	
Lobby:	GWB	VCT	GWB	7	7	7	NOISY!
Corridors:	GWB	VCT/CPT	ACT	8	7	8	
Stairs:	N/A						
Toilets:	CT	CT	GWB	8	8	8	
Service/Mechanical:	BRK	CONC	N/A	4	4		
Dining	GWB	VCT	ACT	7	7	7	

INTERIOR FINISHES NOTES

1. Note water infiltration
2. Rear stair in Senior Center contains exhaust air shaft, illegal, must be re-located.
3. Entry lobby ceiling requires acoustic treatment, surface applied panels OK.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
GWB – Gypsum Wallboard
QT – Quarry Tile
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS - Plaster
CT – Ceramic Tile

PRIORITY RECOMMENDATIONS

Condition Key Criteria:
1 – Worst Condition
7 – Or Below, Items To Be Replaced
8 – Or Above, Items To Retain
10 – Best Condition
Compliant - Items that meet codes and/or are compliant
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	2"	2"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to have been replaced with new within 3 plus years	
Gas:	6"	NGRID	Yes	Low Pressure	Black Steel	NGRID	Appears to be 3 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	Cast Iron / PCV / 8	N/A / N/A	
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Natural Gas (Low Pressure)	3+ years.		Dom. Water appears to be 3 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Tank type and Wall hung with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	5	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	5	

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N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Lavatory:	Wall hung & countertop types	No / No	None	5	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Floor mounted	No / No	No	5	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	8	Several with threaded connections require integral vacuum breakers
Showers:	N/A	No / No	N/A	N/A	

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
3. Priority 3: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 4: Janitors sinks have non compliant threaded faucets without integral vacuum breakers and leaking. Recommend replacing with new faucets.
5. Priority 5: Recommend providing an inline macerating grinder, do to adult diapers clogging sanitary drain on a monthly basis.
6. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies on all exposed and accessible piping.

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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	6”	Steel	Basement	No Data	Appears to be 5 plus years old	8
Backflow Prevention:	4”	Cast Iron	Basement	N/A	Appears to be 5 plus years old	8

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	N/A	N/A	N/A	N/A	

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	Wet	Pendant	Each floor	Unk.	8
Typical Classrooms	N/A				
Large Spaces	Wet	Concealed type			8
Kitchen:	Wet	Pendant			8
Stairs:	Wet	Upright			8
Fire Department Connections:	Siamese 2½” x 2½”				8
Exterior:	N/A				
Interior:	Yes				
Shut-Off Valves:	Yes		Yes	Unk.	8
Pre-Action Controls:	N/A				

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Condensing HW Boiler	Lochinvar Knight 399 MBH Input 360 MBH Output	Recent	9
Cooling Equipment #1:	Electric	RTU –DX	Lennox 11000± CFM REMD16M	Old	3 See Comment 1
Exhaust Equipment #1:	Electric	RTU –DX	Trane Voyager 1700 ± CFM	Old	3

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution		RTU Gas Furnaces		Natural Gas		
Cooling Distribution Equipment:		Ducted Constant Volume		RTUs	1980±	2 See Comment 2
Perimeter Heating Equipment:	Various	Baseboard Fin tube	Unknown	Boiler HW	1980±	3 See Comment 3

Terminal Equipment	Type	Manufacturer	Controls	Date of Installation	Conditions
Typical Classrooms:					
Offices:					
Library:					
Auditorium:					
Cafeteria:					
Gym:					
Kitchen:					
Corridors:					
Toilets:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment	???	Economizer	Lennox RTU	Trane DDC		
	???	Fixed OA	Trane voyager			
	???	Dome Fan	(toilet Exh.)			4

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The RTUs are both old and require ongoing maintenance to keep them functioning.

Condition Key Criteria:

1 – System Failure
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N/A – Not applicable/Not available
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2. The main duct from the Lennox RTU travels down the underside of the stairwell and violates fire codes.
3. The covers of the residential style baseboard radiation have been beaten over the years and often off the mounting brackets, end pieces are missing and are generally unaesthetic. The fins themselves are often bent.

RECOMMENDATIONS

- Replace the existing RTUs
    - Relocate the RTU serving the lower floor and find an alternate route for the main duct which is not permitted to run in the stair well.
- Repair/replace the baseboard finned heat. A commercial grade cover should be used to prevent damage. A Runtal style baseboard unit is another alternative.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

ELECTRICAL

	Rating	Voltage	Metering	Condition	Notes
Service:	400amps	208/120v 3ph	Underground	5	-

Transformer:	Pole		NGrid		

Emergency Generator:	Temp Gen connection	208/120V, 3ph	Manual	NA	1

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Fused Switch	Switch and fuse distribution panel, Circuit breaker panelboards	Metal clad cable, conduit and wire	7	2

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		5	3
Lobby:	Duplex	Grounding		5	
Corridor:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	5	4
Lobby:	Fluorescent	Lensed	5	
Corridors:	Fluorescent	Lensed	5	
Assembly:	Fluorescent	Lensed	5	
Toilets:	Fluorescent	Lensed	5	
Stairs	T8 Fluorescent	Lensed	3	
Basement	T8 Fluorescent	Strip	5	
Lighting Controls:	Manual/automatic	Switches, wall occupancy sensors, photocells	5	

Site Lighting	Lamp Type	Mounting	Condition	Notes
Parking:	HID	Pole		
Walkways:		Wall		
Building Entrances:	Fluorescent	Wall		
Security System		**Locations**		
CCTV:	N/A			
Door Access Controls:	N/A			
Detection Devices:	IR		3	6

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Communications System		Locations	Devices	Condition	Notes
Master Clock / Program:	N/A				7
PA System:	N/A				
Cable TV	Cox	Lounge Area	Wall Jack		

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D				7
Multipurpose Room:	T/D				
Lobby:					

Local Sound Systems	System Devices	Type			
Auditorium:	N/A				

	Type	Style	Condition	Notes
Emergency Lighting:	EBU	Central batteries in stairs and corridors, individual units in selected locations	3	8
Exit Lighting:	Fluor, LED	Internally illuminated with battery backup, some with integral emergency heads	3	8

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Analog	FCI	Horn/Strobes	3	9
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	NA	Limited HS		3	
Corridors:	SD	Limited HS	At egresses	3	
Electric Service:	SD	Limited HS		3	
Toilets:	NA	NA			
Sprinkler Service	NA	Tamper and Flow switches?		3	
Basement	SD	Limited HS		3	
Air Handling Units	NA	Duct smoke Detectors?			
Municipal Notification			Radio Maser Box		
Knox Box			Yes		

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Provide label at temporary generator connection; recommend relocation of fused switch out of stairway to floor below; improved labeling needed. Adult day care has hazardous noninterlocked cover at service switch which could allow work on energized switch.
2. Service and distribution equipment of advanced age; evidence of water infiltration by streaking on service equipment covers; recommend operation of fused switches to confirm proper function, examination and possible retourque of feeder connections, confirmation of all loads with updated labeling and circuit directories. Recommend placard for temp generator service procedures and updated labeling of all equipment.
3. Most receptacle locations observed were of the grounding type.

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M – Missing

4. Lighting appears to be adequate and well maintained. Lighting was of various ages, suggesting numerous and limited updates.
5. Exterior lighting could be improved at driveway between buildings. No exit discharge lighting for emergency egress was observed.
6. Intrusion alarm system consists of door contacts and motion detectors in selected locations
7. Communications systems are limited to cable TV and voice and data outlets.
8. Emergency battery units are well maintained and have passed recent inspections. System consists of units of various types and methods. Corridors and stairs have remote heads from a central battery unit while updated area have remote heads and single battery units, sometimes integrated with exit signage.
9. Fire alarm system control panel is analog zoned type; recommend system update to addressable type with expanded manual station coverage, audio/visual notification and automatic detector coverage above and below ceilings. Recommend addition of rescue assistance intercoms and signage in stairs at currently designated locations.(Any sprinkler tie in?, duct smoke detectors? Smoke and fire dampers needed at stair ductwork? Senior day care tied into Senior center FACP.

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N/A – Not applicable/Not available
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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment, Routes Available

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Aluminum/Glass	P/Pull	8
Exterior/Egress Doors:	3'-0"	Aluminum/Glass	P/Pull	8
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –				
Offices:	3'-0"	WD	Knob	5
Corridor:	3'-0"	WD	Lever	4
Stairs:	3'-0"	HM	Lever	4
Toilets:	3'-0"	WD	Lever	3

	Size			Conditions
Vertical Access: (Elevators/Lifts)		New controller, door operators, wiring, door locks rollers, plus smokes upgrade	Est. $50,000	

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	Varies	RBR –Ducts Present		1
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Very tight, need plans, grab bars available		5
Tables & Seating	Adequate dining room space		5
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility: **PUBLIC WORKS CENTER / MAINTENANCE FACILITY**

Address: 250 Armistice Boulevard
Pawtucket, Rhode Island

Name of Owner: City of Pawtucket
Building Use Group: **Mixed-Use - A-3, B, & S-2** Occupancy
Use Description: Maintenance Facility
Years in Service:
Year Constructed: Designer:
Additions: One Additional Designer:
Existing Drawings: Original construction only, No existing conditions drawings
Gross Square Feet:

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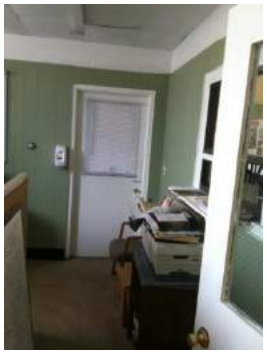
PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Increase administrative space by 40%.
2. Provide lobby, reception, waiting area for administration and traffic engineering.
3. Outsource trash removal and renovate area for Building maintenance.
4. Provide adequate furnishings and equipment for Traffic engineering and staff day rooms.



SITE

1. Correct ponding north of the main building around the catch basins. Further investigation required to identify source of problems and effective solutions.
2. Repave all lots and roadways in the next five years.
3. Increase number of ADA spaces to 5.

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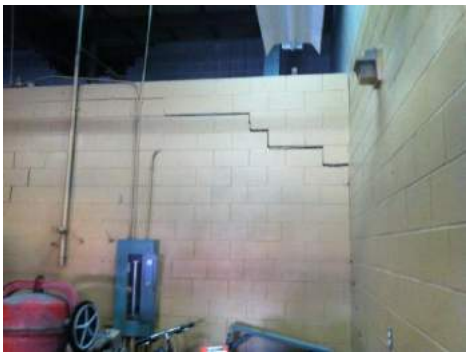
N/A – Not applicable/Not available
M – Missing

STRUCTURE

1. Monitor existing floor slab and concrete block walls for any continued growth of floor cracks and settling.
2. Pull back grade from the base of metal wall panels at building perimeter to prevent further corrosion.



EXTERIOR ENVELOPE

1. Move old tires away from building. Provide a fenced area away from the building.
2. Roof not accessible for review, aerial photos indicate partial replacement may be necessary. Further investigation required.

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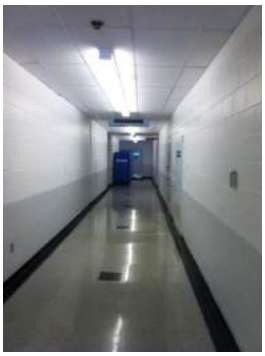
N/A – Not applicable/Not available
M – Missing

INTERIOR FINISHES

1. Install code compliant fire separation at all mixed-use areas.
2. Install code compliant electronically lit exits signs.
3. Install handle type hardware at all doorways.
4. Install panic hardware at egress doors from large open bay areas.
5. Perform a complete code compliance/egress review of the facility to correct door hardware violations.
6. Provide ADA compliant bathroom fixtures.
7. Perform a complete egress review, central corridor may not be means of egress, door opens directly into maintenance bay number 2.
8. Egress from mezzanine offices may not be legal, perform egress review.
9. Provide NFPA 101 approved fire extinguisher signs.
10. Provide 1-HR rated enclosure for office located within maintenance garage.



PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.

AUTOMATIC FIRE SUPPRESSION

1. Changes or upgrades may be required upon completion of a building code and life safety analysis.

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HEATING & VENTILATING SYSTEMS

1. Replace unit heaters in the garage with gas fired infrared heaters.
2. After installing infrared heaters in garage, evaluate the economics of replacing existing boilers with a condensing boiler.
3. Provide new perimeter radiation. Convectors buried behind the furred out wall should be replaced with a quality baseboard heat such as Runtal.
4. Provide mechanical ventilation and cooling to Sanitation and Highway offices via a small ceiling mounted AHU with a hot water coil and split DX cooling.

ELECTRICAL

1. Distribution equipment of older type with obsolescence issues for repairs and parts. Recommend complete replacement.
2. Re-label and update all circuit breakers, panel boards and directories. Confirm all loads.
3. Upgrade manual transfer switch at emergency generator to automatic transfer switch.
4. Provide separate generator for Storm/Disaster relief operations.
5. Provide placard for emergency generator service procedures and updated labeling of all equipment.
6. Provide code compliant exit discharge lighting.
7. Provide automatic transfer scheme to emergency power for life safety and occupant protection if generator continues to be used as emergency lighting source with switching bypass relays to bring de-energized emergency lighting on in emergency conditions.
8. Provide emergency battery units and exit signs with batteries if generator is not to be used for life safety lighting.

PROVISIONS FOR ACCESSIBILITY

1. Provide ADA accessible toilet stalls and fixtures

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OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	The administrative space is 30 to 40% undersized.
Room Quantity:	There is a need for lobby, reception, waiting area for the administration area. There is also a need for lobby, reception, waiting area for the traffic engineering area. Building maintenance is in a separate building and would function as part of the main facility. Outsourcing of trash removal allows this bay to be made available for other use (Building maintenance).
Room Qualities (Fit-up):	Traffic engineering does not have appropriate FF&E Staff Day Rooms do not have appropriate FF&E
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	No issues discussed.
Notes:	Consider reorganizing the administration area. Eliminate the entrance corridor and use the space for a lobby/reception space. Also consider reorganizing the traffic engineering area. Relocate the toilets to face the central corridor, eliminate the entrance corridor and office and use the space for a lobby/reception space.

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SITE DATA

	Description
Land Used:	8.87 Acres
Lot Area:	7.48 Acres, Map 19, Lot 237
Topography:	Northern portion of site slopes south to center of site, portions of south slopes north to center of site, and remaining south portions slope south towards Armistice Blvd
Wetlands:	None within 500' of site

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	Unknown	N/A	N/A	N/A	N/A
Water:	2"	Copper	Plumbing Eng.	N/A	N/A
Electricity:	1-1/2" underground fire alarm conduit	Concrete encased conduit	Record Plans	N/A	N/A
	3" underground telephone service	Conduit	Record Plans	N/A	N/A
	4" primary electric conduit	Galvanized Steel (concrete encased)	Record Plans	N/A	N/A
Gas:	6"	Steel ?	Plumbing Engineer	±3 years	8
Oil Tank:	6,800 gallon Underground storage tank	N/A	1967 Record Plans	N/A	N/A
	Gasoline Underground Tank	N/A	1967 Record Plans	N/A	N/A
	Diesel Underground Tank	N/A	1967 Record Plans	N/A	N/A
Storm Water Management:	See site comments below for more detail.				
	Northern and Central Site drainage components	Concrete catch basins and manholes. Concrete pipe, some PVC pipe observed.	Record Plans/ Site Vist	N/A	North & Central – 1/2
	Southern Site drainage components			N/A	Southern - 8
Service Areas:	No area designated	N/A	N/A	N/A	N/A
Parking Lots:	See breakdown of lots below	Bit. Pavement	Site Visit	N/A	See Below

	Type:	Source	Date Installed	Conditions
Site Lighting:	Various pole mounted and building mounted fixtures	Site Visit	N/A	8
Fire Hydrant:	3 hydrants observed within proximity of site buildings	Site Visit	N/A	8

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	# Spaces / Size	Material	Date Installed	Conditions
Parking Lot West & Drive:	76 spaces / 36,500 SF	Bit. Pavement	N/A	5
Parking Lot Front:	18 spaces / 8,500 SF	Bit. Pavement	N/A	4
Parking Lot East & Drive:	25 spaces / 24,900 SF	Bit Pavement	N/A	5
Paved/Gravel Storage Yard West:	15,500 SF	Bit. Pavement – 7,000± SF Gravel – 8,500± SF	N/A N/A	8
Truck Storage/Gas Station/Access Drive North:	54,500 SF	Bit. Pavement	N/A	4/5
Pavement Reclamation Yard:	24,100 SF	Gravel / Scrub	N/A	N/A
Parks Division Lot:	10 spaces / 10,700 SF	Bit. Pavement	N/A	7/8
School bus Lot:	14 Bus Spaces / 15 Standard Spaces / 22,100 SF Bit / 500 SF Concrete	Bit. Pavement Concrete Ramp at Garage	N/A N/A	8 8
Truck Storage East:	10 Striped Spaces / 14,710 SF	Bit. Pavement: 3,900 SF Gravel / Scrub: 10,810 SF	N/A N/A	8 N/A
Materials Yard East:	14 Materials Bays 21,300 SF	Gravel	N/A	N/A
Plow Truck Lot & Adjacent Drives:	10 Plow Truck Spaces 46,200 SF	Bit. Pavement	N/A	4/5
Emergency Ops Bldg Lot:	13 Spaces / 7,600 SF	Bit. Pavement Striping Faded	N/A	8
Public Access Area:	See Parking Lot Front	Bit. Pavement	N/A	4
Vehicle Storage	Several garage ports are provided in the main bldg and accessory buildings (See Arch)	N/A	N/A	See Architectural Evaluation
Loading & Service	See Parking Lots and Drives above	Bit. Pavement	N/A	See individual lots above
Signage:	Adequate "DO NOT ENTER" sign faded	Aluminum Signs on steel posts	N/A	8
Trash Management Area:	Misc. dumpsters around the site	Bit. Pavement	N/A	N/A

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PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	Conditions
Curb Cuts:	Site Entrance East: 38'W	Concrete	3
	Site Exit West: 39'W	Concrete	8
	East Parking Entrance: 24'W	Concrete	8
	Front Bldg Entrance Ramp: 8'W	Concrete	8
Walkways:	Front Bldg Entrance: 6'W	Concrete Curb edges deteriorating	6
Ramps:	Front Bldg Entrance: 8'W	Concrete	8
Parking:	(1) - 9'W x 19'L Parallel Space	Bit. Pavement	4

SITE NOTES

1. Evidence of ponding north of the main building around the catch basins was observed. DPW employees verified ponding issues during preliminary meeting. Further investigation of system is required to identify source of problems and effective solutions.
2. A majority of the northern and central portions as well as some southern portions of the site flow overland to four catch basins located in the central portion of the site. Record design plans indicate that these catch basins are routed north to a leaching field, but site observations indicate the basins are routed south through the site. Record plans also indicate that roof runoff from northern portion of DPW building is routed north to a leaching field. Additional field investigation and review of other record plans is required to confirm.
3. A majority of the southern portion of the site is captured in a catch basin in the front parking lot and routed to the Armistice Blvd system, and the remaining areas appear to flow offsite to Armistice Blvd or the cemetery property to the west. Record plans indicate that roof runoff from the southern portion of the main building is routed to the drain line in the front parking lot that ties into the Armistice Blvd system.
4. Record plans indicate that roof runoff from southern portion of DPW building is routed to drain line in front parking lot which is routed to Armistice Blvd system.
5. Bituminous pavement in most portions of the site contains mild to severe fatigue cracking and surface deterioration. Repaving of most areas should be considered in the next five years. See table above for breakdown of areas and conditions.
6. No evidence of on-site stormwater treatment measures observed in current collection system.
7. Number of accessible parking spaces provided (based on total number of parking spaces observed) is not adequate per ADA code. Based on 119 spaces in front, west, and east lots around the main building, ADA requires 5 accessible spaces.
8. Layout of existing accessible parking space is not ADA compliant since it requires parallel maneuvering.
9. Portions of fencing around parking areas and stockpile areas are rusted, broken, and falling apart in some areas.

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N/A – Not applicable/Not available
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BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Pile foundation system with grade beams at the perimeter of the building, and pile caps at the interior columns, and under the ground floor framed slab.	Piles indicated on the original drawings to be 20 ton wood piles.	Unknown
Vertical Support Systems:	Custom prefabricated steel bent frame columns.		9
Floor Framing System:	N/A ... There are some ad-hoc storage mezzanines that are wood famed.		7
Ground:	6.5” to 8.5” thick reinforced concrete two way flat slab construction.	Existing structural drawings indicate 6.5” slab (typ.), with 8.5” thick drop panels over pile caps. Slab is deflecting or settling.	8
Upper Floors:	N/A		
Roof Framing System:	Pre-engineered roof framing system. Long span arched bent frame columns and wide flange beams. Z- Channel roof purlins between bents.		9
Lateral Force Resisting System:	Bent frames and typical steel rod “X-Bracing”.		9

STRUCTURE NOTES

1. Building foundation appears to be a pile foundation system. Existing drawings indicate 20 ton wood piles.
2. There are many areas of floor in the office area of the building that have a noticeable pitch, particularly in the central or main corridor. It appears that the existing framed slab is deflecting or settling in the areas of heavy loads, such as the continuous CMU demising walls. Floor tile which has been replaced recently is not cracked in the pitched areas, so the settlement or deflection may not still be active. The exact design loading for the slab or the allowable capacity of the foundation system is not identified on the existing drawings but based on the pile spacing and capacity we determined the slab to have an allowable Live Load Capacity of approximately 100psf. Therefore, the unevenness of the slab may be from deflection and not necessarily settlement of the foundation. The question then would be is the slab overstressed from too much load and deflecting excessively because of overloading.
3. Also, there are many cracks in the CMU walls in the shop and storage spaces of the building. Some cracks are up to ¾ to 1’ wide. Floor slab and cmu walls should be monitored for continued growth, if any, of floor cracks and settlements.
4. Pre-engineered structures are designed to be flexible under load, and to span long distances. Consequently, bent Frames can, under the right loading, deflect a fair amount. It is important that the CMU walls in the spaces below the frames stop short of all related roof framing members, including the roof deck, Z channels, and bent frames. This will insure that the framing performs as intended and is not overstressed by unaccounted -for supports.
5. Many of the exterior metal panels are buried in the soil at the outside perimeter of the building. This is leading to rapid corrosion of the metal panel. The grade should be pulled back from the base of the metal panels.
6. There are reported roof leaks throughout the building. Refer to the Exterior Envelope section of this report for more information on this issue.

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N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Steel	See Comments Below	8
Exterior Trim/Fascia:	Metal	See Comments Below	8
Sloped Roof Assembly:	Metal	See Comments Below	
Flat Roof Assembly:			
Windows:	Metal	See Comments Below	
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	3

EXTERIOR ENVELOPE NOTES

1. Thresholds at Garage entrances are damaged.
2. Multiple locations around entire building where steel siding has dents.
3. Air conditioners are cut within window opening.
4. Concrete around steal bollards need to be patched and/or replaced.
5. Door jambs at bollards are damaged.
6. Some exterior doors have more than an 8” drop off from interior to exterior spaces.
7. Damaged foundation wall by gas meter.
8. Recommend that tires should not be placed against building, but rather a designed fenced area away from the building.

ROOF

1. Roof not accessible for review.
2. Large roof area discolored my exterior generator.
3. All roof top fans have large streaks of rust coming off from them.

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N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB	VCT	ACT	8	8	8	
Lobby:							
Corridors:	CMU	VCT	ACT	9	9	7	
Stairs:							
Toilets:	CMU	*VAT	ACT	8	1	7	
Service/Mechanical:			OPEN				
Locker Rooms:	CMU	VCT	ACT	8	8	8	
Mechanical Repair Bay:	METAL	CONC	OPEN	8	8	7	
:							
:							
:							

INTERIOR FINISHES NOTES

1. Mixed-Use areas have no Fire Separation
2. Corridor floor is not level. Tilts to one side substantially.
3. Ceiling grid not straight and level in corridor.
4. Exits signs are not to Code, need to be electronically lit.
5. All doors require handle hardware type instead of twist knob.
6. Exterior doors missing panic hardware from large open bay areas.
7. Large open Garage bay areas in Business Wing have large cracks and concrete heaves and depressions in floor slab.
8. One storage room has water leaking in ACT.
9. Same storage room has extremely large cracks in CMU. Structural to review and comment.
10. Multiple CMU walls have substantial cracking.
11. Many spaces have pad locks on door frames. A review of egress may require the removal of many of these conditions.
12. Masonry walls do not continue to underside of decking at corridors. No Fire rating.
13. None of the bathroom fixtures are handicap accessible.
14. Large bathroom have missing VAT.
15. Large bays where masonry continues to underside of steel have large cracks due to deflection of steel trusses.
16. Asbestos pipe insulation visible from open Mezzanine at bay looking down at ACT.
17. Air conditioner is installed between two interior masonry walls.
18. One garage bay has large concrete heave in it.
19. Residential door has been installed near garage door. No lit exit sign and/or panic hardware. Door framed with wood members. Not properly framed.
20. Interior door thresholds missing.
21. VCT and VAT at office areas.
22. Building not sprinklered.
23. Wire glass doors do not meet fire protection requirements.
24. Office doors with dead bolt latches.
25. 2nd means of egress not accessible from long corridor. Door opens directly into maintenance bay.
26. Wood storage cabinets in egress corridor not acceptable.
27. In maintenance Bay, need to paint egress paths with yellow stripes on concrete. These area shall not be blocked with tool cabinets or machinery.
28. Emergency Eye Wash stations need to be cleaned and updated.
29. Louvered doors to rooms from this space not acceptable.

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N/A – Not applicable/Not available
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30. Accessibility to fire extinguishers blocked by stored materials.
31. No 2 means of egress from mezzanine offices within Maintenance Bay area.
32. No handicap accessibility from Business wing to Maintenance wing.
33. Office area with Maintenance Garage not handicap accessible.
34. Fire Extinguisher signs are not NFPA 101 approved. Triangular metal signs required in lieu of wall stickers.
35. Fire extinguishers mounted higher that what is required by ANSI A117.1-2009.
36. Office built with Maintenance garage are not rated 1-HR.
37. Concrete floor at Maintenance area needs new coat of paint.
38. Unistrut attached to Butler Metal Building structures are bent.
39. Fire Pull stations are mounted to high by exterior doors. These doors also require panic hardware.
40. Fire blankets not seen at this inspection.
41. Fire Extinguishers that are used for special oils and grease should be located near work areas.
42. Interior generators don't seem to have sufficient exhaust or are piped to exterior.
43. Severe water damage to ACT ceiling at signage work offices.
44. General clean-up of clutter is recommended.
45. Partial masonry wall has been removed. Electrical conduit is still spacing opening.
46. Main Entrance doors require panic Hardware.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

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PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	2"	2"	N/A	City Pressure	Copper	City	Service is Original. Water meter assembly appears to have been replaced with new within 3 plus years	
Gas:	6"	NGRID	Yes	Low Pressure	Black Steel	NGRID	Appears to be 3 years plus.	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	None / M	
Domestic Hot Water:	Copper Type "L" / 8	None / M	Current system temperature at 110 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	
Storm Drainage:	N/A	N/A / N/A	
Gas:	Black steel / 8	None Required / 9	
Non-Potable CW:	Copper / 8	None / M	
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Gas fired storage water heater / Natural Gas (Low Pressure)	3+ years.		Dom. Water appears to be 3 plus years old. No Master Hi-Lo Thermostatic Mixing Valve present at this time. The 140 hot water distributions to building currently required tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Storage tank to be set at 140 degrees F.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	None present
Interior Kitchen Grease Trap:	N/A	N/A	N/A	None present

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Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Wall hung with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	8	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	8	
Lavatory:	Wall hung & countertop types	No / No	None	8	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Floor mounted	No / No	No	8	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	8	Several with threaded connections require integral vacuum breakers
Showers:	Stall / Floor	No / No	No	5	Shower heads not low flow types (2.5 gpm)

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in all rest rooms. Recommend providing. Required per latest IPC in areas with 3 or more fixtures. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.

PLUMBING NOTES

1. Priority 1: Highly recommended to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) heater storage tank to assure 110 degrees F. maximum distributed throughout building.
2. Priority 2: Recommend replacing all public faucets with new sensor or metered type low flow faucets.
3. Priority 3: Provide all piping below lavatories to be insulated to all ADA lavatories complete with offset drain strainers.
4. Priority 4: Janitors sinks have non compliant threaded faucets without integral vacuum breakers and leaking. Recommend replacing with new faucets.
5. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies on all exposed and accessible piping.

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AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Offices	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Lobby	NA	NA	NA	NA	NA
Corridors:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

FIRE SUPRESSION SYSTEM NOTES

1.

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HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	(2) CI HW Boilers	Weil McClain Model 488 Carlin Burners 700 to 1500 MBH	Since 2008 Burners 2012	9 See Comment
Cooling Equipment #1:	Electric	Ceiling AHU	AHU Carrier Condenser Bryant Model 569DPX090000AA		7
Cooling Equipment #2:	Electric	PTAC & Window	Varies		4

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Office/Residence Areas		Convectors & Fin		Hot Water	Original	3 See Comment 1
Heating Distribution Truck Bays		Vertical Unit Heaters		Hot Water	Original	1 See comment 3
Perimeter Heating Equipment:		Ceiling & Cabinet UH		HW		4 See comment 2

Terminal Equipment	Type	Manufacturer	Controls	Date of Installation	Conditions
Typical	Cabinet heaters				See Comment 4

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment	42x12 OA Louver	Office AHU	Carrier	Fixed OA Fraction		7
	Zero	None in the Sanitation Office				1 See Comment 5

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HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. The boiler and burner are in fair condition however there is virtually no insulation on the BR piping. Single HW loop w/ one & redundant pumps.
2. The east wall of the office area has been framed out and finished. In doing so the convectors are now buried in the wall. Stamped mesh screens have been placed in front of the convectors but heat naturally rising ends up at the top of the cavity and not in the room.
3. There are nine ancient unit heaters in the main truck garage which has at least seven overhead doors. These units are well past their expected life expectancy and could fail at any time. With the frequent truck activity during the winter the doors are often open and the warm air escapes leaving the entire open area cold. Infrared heaters that warm objects rather than air would be more effective.
4. There are 2 ceiling units and a floor cabinet heater serving the main corridor. These are in fair condition.
5. This office is a converted closet with 3 desks and a refrigerator. There is no mechanical ventilation or exterior exposure.

RECOMMENDATIONS

- Replace the unit heaters in the garage with gas fired infrared heaters. The infrared heaters tend to heat objects and not the air mass which is lost whenever the doors are opened.
    - Without the large boiler load from the garage heat the existing boilers may be significantly oversized. An evaluation of the economics of replacing the boilers with a condensing unit should be made.
- Provide new perimeter radiation. The convectors buried behind the furred out wall should be replaced with a quality baseboard heat such as Runtal.
- Provide mechanical ventilation and cooling to Sanitation and Highway offices via a small ceiling mounted AHU with a hot water coil and split DX cooling.

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ELECTRICAL

Electric Service	Size	Volts/ Phase	Type	Condition	Notes
Service:	500amps	208/120v 3ph	Underground	4	1

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch		
Emergency Generator:	Diesel	208/120V, 3ph	Manual	7	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Fused Switch	Circuit breaker panelboards	Metal clad cable, conduit and wire	2	3

Devices	Type			Condition	Notes
Offices:	Duplex	Grounding		5	4
Lobby:	Duplex	Grounding		5	
Corridor:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	5	5
Lobby:	Fluorescent	Lensed	5	
Corridors:	Fluorescent	Lensed	5	
Shops:	Fluorescent	Lensed	5	
Toilets:	Fluorescent	Lensed	5	
Stairs	T8 Fluorescent	Lensed	3	
Shops	T5 Fluorescent	Open louver	8	
Lighting Controls:	Manual/automatic	Switches, minimal ceiling and wall occupancy sensors, photocells	5	

Site Lighting	Lamp Type		Mounting	Condition	Notes
Parking:	HID		Pole/ Wall		
Walkways:	NA				
Building Entrances:	NA				
Security System		Locations			
CCTV:	Exterior	Yard, Accesses, Exits		8	7
Door Access Controls:	N/A				
Detection Devices:	IR			3	

Communications System		Locations	Devices		
Master Clock / Program:	N/A				7
PA System:	N/A				
Cable TV	Cox	Lounge Area	Wall Jack		

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Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D			5	8
Multipurpose Room:	T/D			5	
Shops	T/D			5	

Local Sound Systems	System Devices	Type			
Auditorium:	N/A				

	Type	Style	Condition	Notes
Emergency Lighting:	Via generator	Central batteries in stairs and corridors, individual units in selected locations	5	9
Exit Lighting:	Fluor, LED	Internally illuminated with battery backup, some with integral emergency heads	3	9

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Addressable	FCI	Horn/Strobes	7	10
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	HD Analog	Limited HS		3	
Corridors:	HD Analog	Limited HS	At egresses	3	
Electric Service:	HD Analog	Limited HS		3	
Toilets:	HD Analog	Limited HS		3	
Sprinkler Service	HD Analog	Tamper and Flow switches?		3	
Basement	NA	NA		3	
Air Handling Units	NA	Duct smoke Detectors?			
Municipal Notification			Radio Maser Box		
Knox Box			No		

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Distribution equipment of older type with obsolescence issues for repair parts. Improved labeling of circuit breakers, panelboards and directories needed.
2. Generator service shared with police substation in adjacent lot. Manual transfer during power outages. Recommend upgrade to automatic transfer service with new transfer switch. Recommend separate generator for Storm/Disaster relief operations.
3. Service and distribution equipment of advanced age and in poor shape; Panels have obsolescence issues for repair parts. Insurance company has cited garage panels as a safety hazard; immediate replacement needed. Recommend confirmation of all loads with updated labeling and circuit directories. Recommend placard for emergency generator service procedures and updated labeling of all equipment.
4. Most locations lack adequate receptacle coverage. Recommend GFI protection for workshops, exterior and toilet area. Most receptacles observed were of the grounding type.
5. Lighting appears to be adequate and well maintained. Lighting was of various ages, suggesting numerous and limited updates. Recent updates with automatic controls were observed in the workshop areas. Use of circuit breakers to control lighting in repair garage has contributed to their disrepair and is an insurance risk. Recommend adding a low

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voltage lighting control system to control corridors, exterior and high bay areas not reachable with occupancy sensors.

6. Exterior lighting could be improved at doorways. No exit discharge lighting for emergency egress was observed.
7. Intrusion alarm system consists of door contacts and motion detectors in selected locations. Better coverage recommended at high value areas.
8. Communications systems are limited to cable TV and voice and data outlets.
9. Minimal exit signage observed. Exit discharge lighting missing. Recommend automatic transfer scheme to emergency power for life safety and occupant protection if generator continues to be used as emergency lighting source with switching bypass relays to bring de-energized emergency lighting on in emergency conditions. Recommend emergency battery units and exit signs with batteries if generator is not to be used for life safety lighting.
10. Fire alarm system control panel is addressable type with analog detectors; recommend system update to addressable type devices including new device loops, with expanded manual station coverage, audio/visual notification and automatic detector coverage above and below ceilings.

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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Aluminum/Wire Glass	P/Pull	5
Exterior/Egress Doors:		HM/WD	P/Pull	4
Signage:	Paint egress path, shop			1

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –	3'-0"	HM	Knob	5
Offices:	3'-0"	HM	Knob	5
Corridor:				
Stairs:				
Toilets:	3'-0"	HM	Knob	5

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:				
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Not Accessible, No ADA stalls, fixtures	HM	4
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility:	**PAWTUCKET POLICE ANNEX**		
Address:	270 Armistice Boulevard Pawtucket, Rhode Island		
Name of Owner:	City of Pawtucket		
Building Use Group:			
Use Description:			
Years in Service:	27		
Year Constructed:	1986/2006	Designer:	
Additions:		Designer:	
Existing Drawings:	No		
Gross Square Feet:	5,104		

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PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

No priority recommendations

SITE

1. Replace missing downspout section.
2. Provide ADA accessible space near front entrance.
3. Replace missing curb section curb along Armistice Blvd.
4. Provide vehicle protection for oil tanks in west corner of site.

STRUCTURE

1. Cell tower should be reviewed by Vendor to ensure it is properly engineered for wind loading and quantity of apparatus attached.
2. Review supports for satellite dish hung from the exterior wall for adequacy by a professional engineer.

EXTERIOR ENVELOPE

No priority recommendations

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INTERIOR FINISHES

No priority recommendations

PLUMBING

1. Provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout.
2. Install back water valve to avoid any street back pressure from combined sewer/storm drain system.
3. Replace all roof drains with dual integral cast iron roof drains to avoid any deep pooling.
4. Replace all public and/or ADA faucets with new sensor or metered type low flow faucets.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

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HEATING & VENTILATING SYSTEMS

1. Provide a new first floor air handler with outdoor air capabilities, gas furnace heat and DX cooling.
2. Replace existing flex duct with sheet metal ductwork.
3. Evaluate the condition of the existing second floor rooftop unit (RTU)and replace if necessary.

ELECTRICAL

1. Remove all stored materials from electric rooms
2. Install code compliant exterior lighting at doorways.
3. Provide exit discharge lighting for emergency egress.
4. Provide appropriate Intrusion alarm at high value areas.
5. Expand heat detectors to 100% coverage with additional horn strobe units in offices, toilets and common areas.

PROVISIONS FOR ACCESSIBILITY

1. Provide ADA compliant toilet and shower rooms.

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OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	***SEE: SECTION 1 – CITY HALL – POLICE HQ- FIRE***
Room Quantity:	
Room Qualities (Fit-up):	
External Adjacencies:	
Internal Adjacencies:	
Remarks:	

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SITE DATA

	Description
Land Used:	0.73 Acres (within limits of fence)
Lot Area:	2.37 Acres (Plat 19, Lot 238)
Topography:	Flat – Site generally slopes north /northwest
Wetlands:	None identified within 500'

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	N/A	N/A	N/A	N/A	N/A
Water:	Service off Armistice Blvd (size unknown)	Copper?	Site Visit	N/A	N/A
Electricity:	Underground; Overhead wires to Bldg also observed	N/A	Site Visit	N/A	N/A
Gas:	Gas Gate observed at Curb Cut – Size unknown Gas meter observed on west side of Bldg	N/A	Site Visit	N/A	N/A
Oil Tank:	Two oil tanks (Uncertain whether they serve DPW or Police Annex) 275 Gallon Tank 500 Gallon Tank? Diesel(?) Generator	Steel	Site Visit Site Visit	N/A N/A N/A	Rusting, 7/8 8
Storm Water Management:	Overland flow to catch basins (catch basins located beyond fence limits of Site)		Site Visit	N/A	8
Service Areas:	None designated (see oil tanks and generator above)	N/A	Site Visit	N/A	N/A
Parking Lots:	22,800 SF	Bit. Pavement	Site Visit	N/A	8

	Type:	Source	Date Installed	Conditions
Site Lighting:	One pole mounted fixture Various bldg mounted fixtures	Site Visit	N/A	8 See electrical
Fire Hydrant:	One hydrant within 100 feet of bldg on Armistice Blvd	Site Visit	N/A	8

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	# Spaces	Material	Date Installed	Conditions
Parking Lot:	64 Spaces - 22,800 SF	Bit. Pavement	N/A	8
Public Access Area:	None	N/A	N/A	N/A
Vehicle Storage	Parking lot is used for vehicle storage	Bit. Pavement	N/A	N/A
Loading & Service	No space designated	Bit. Pavement	N/A	N/A
Signage:	Adequate	Aluminum Signs	N/A	8
Trash Management Area:	None designated	N/A	N/A	N/A

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	
Curb Cuts:	Parking lot exit on Armistice Blvd – 19' wide	Concrete	8
	Sidewalk at corner of Armistice & George Bennett Highway – 2.5' wide	Bit. Pavement	8
Walkways:	Along Armistice: 6'-8' wide	Concrete / Bit Pavement	7/8 Some large cracks exist; repairs should be considered
	Front entrance walk: 4'wide	Concrete	8
Parking:	No accessible parking spaces observed	N/A	N/A
Parking:			

SITE NOTES

1. Stormwater runoff from southern portion of parking lot pavement is captured in a catch basin beyond the western fence adjacent to the DPW accessory building. Catch basin grate is covered by leaves & debris. Runoff from the remaining parking lot area flows overland in the northeast direction onto the DPW property where it is eventually captured by catch basins north of main DPW building.
2. Roof runoff is captured by roof leaders, and downspouts discharge externally. One downspout section is missing, so water is flowing down the exterior wall of the building at discharge.
3. No stormwater treatment measures observed.
4. No evidence of ponding or flooding in parking lot.
5. Building is only accessible at the front entrance. All side and rear door have step ups to enter building.
6. No ADA accessible spaces provided in parking/ vehicle storage lot.
7. Section of curb in front along Armistice Blvd in front of building is missing
8. Oil tanks in west corner of fence in area have no protection from vehicle using adjacent parking spaces
9. Concrete around base of parking sign on along Armistice Blvd Sidewalk is crack and deteriorating due missing curb section.
10. Site fencing is in overall good condition except for some rust and a deformed section of mesh and rail in the south corner of the site along adjacent to Armistice Blvd sidewalk.
11. Fire fighting may be hindered at rear of building since nearest fire hydrant is located on opposite side of barbed wire fence.

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BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Reinforced Concrete		9
Vertical Support Systems:	CMU Masonry Bearing walls, (Block layed-out in Stack Bond pattern). Top 4' of wall is EIFS system over CMU Block.	Minor cracking in wall should be watched and repaired as needed. Leak along wall in stairwell. Most likely origin of the leak is from the roof. Satellite dish hung from side of wall does not appear to be engineered properly.	8
Floor Framing System:	Concrete on form deck.		9
Ground:	Slab-on-Grade 4" to 5" thick.	Good condition, no issues noted.	9
Upper Floors:	4" concrete slab on 1.5" deep painted form deck supported on open web bar joist at 24" on center, spanning from inside stair shaft CMU wall to inside stair CMU shaft wall.	Good condition, no issues noted.	9
Roof Framing System:	Clear span bar joists at 4' to 5' on center with 1.5" deep painted metal roof deck.	Good condition, no issues noted. Roofing membrane nearing end of its useful life as should be replaced within the next 5 years	9-Building frame. 5- Roof membrane.
Lateral Force Resisting System:	Exterior CMU walls. Reinforcing size and spacing unknown.	Some minor cracking in wall should be watched and repaired as needed.	8

STRUCTURE NOTES

1. Building is generally in good shape. It needs some general painting, caulking, re-pointing, and crack repair in the exterior facade.
2. Cell tower does not appear to be engineered properly for height and quantity of apparatus attached to the top. Tower should be reviewed by Vendor for code conforming wind loads.
3. The supports for satellite dish hung from the exterior wall should be reviewed for adequacy by a professional engineer.
4. Second floor was reported to be an addition to the original one story building.

Condition Key Criteria:

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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	CMU, painted		5
Exterior Trim/Fascia:	EIFS	At cornice, corner	7
Sloped Roof Assembly:			
Flat Roof Assembly:	Rolled, Modified Bitumen (?)	Installation date unknown	5
Windows:	Aluminum, thermal units		5
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:	Hollow Metal, painted Aluminum, glazed		7
Interior:	WD, HM		7
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Exterior wall appears to be load-bearing CMU, painted. Evidence of some moisture penetration, some peeling paint, efflorescence at exposed interior block in stairwells.
2. Users report that second floor and exit stairways were added. Visual inspection at exit stairways confirms this theory.
3. No leaks apparent at interior.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB	VCT	ACT	7	7	7	
Lobby:	CMU	VCT	ACT	6	6	6	
Corridors:							
Stairs:	CMU	CONC	N/A	5	5	N/A	
Toilets:	ACT	VCT	ACT	6	6	6	
Service/Mechanical:	CMU	CONC	N/A	5	5	N/A	
Locker Room	GWB/CPT	VCT	ACT	6	6	6	
Meeting Room	GWB	VCT	ACT	7	7	7	

INTERIOR FINISHES NOTES

1. Locker room on first floor, meeting/squad room at second floor. Special offices located on second floor. Building was originally intended as city-wide dispatch facility; those functions have been returned to central police office at City Hall.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:

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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water Incoming Service:	N/A	N/A	N/A	N/A	N/A	City Hall Central Mechanical Plant	Refer to City Hall items	
Gas:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper Type "L" / 8	Glass fiber / M	Insulations shall be Kraft reinforced foil vapor barrier with self-sealing adhesive joints. Jacket shall be heavy duty fire retardant material with glass fiber reinforcing and self-sealing lap
Domestic Hot Water:	Copper Type "L" / 8	Glass fiber / M	Provide same insulation type as provided for cold water system. Current system temperature at 140 degrees F.
Sanitary Waste & Vent:	Cast Iron & PVC / 8	N/A / 8	Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system.
Storm Drainage:	Cast Iron & PVC / 8	None / M	Recommend back water valve to avoid any street water back pressure do to combined sewer / storm drain. Recommend replacing all roof drains with dual (Primary and secondary storm) integral roof drains to avoid any deep pooling on tub / parapet type roof levels.
Gas:	Black steel / 8	N/A	
Non-Potable (Lab) CW:	N/A	N/A	No labs present
Non-Potable (Lab) HW:	N/A	N/A	No labs present
Acid (Lab) Waste & Vent:	N/A	N/A	No labs present
Commercial Kitchen Waste:	N/A	N/A	No commercial kitchens present
Tempered Water:	N/A	N/A	No emergency eyewash or showers present

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	N/A	N/A	N/A	The 140 hot water distributions to all three buildings currently require tempering to maximum of 110 degrees F. per the RI State Plumbing Code to fixture distribution supply. Refer to City Hall item for recommended fix.
Sanitary Ejector Pump:	N/A			
Storm Ejector Pump:	N/A	N/A	N/A	N/A
Domestic Water Booster Pump:	N/A	N/A	N/A	N/A
Interior Kitchen Grease Trap:	N/A	N/A	N/A	N/A

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Floor or wall mounted with 1.6 GPF flush-o-meters and tank types	Meets code 1.6 GPF but not high efficiency types No / No	Refer to architectural comments	3	Some fixtures appear to be original and above the 1.6 GPF code maximum requirements.
Urinal:	Floor and wall mounted with 1.0 GPF flush-o-meters	Meets code 1.0 GPF but not high efficiency types. No / No	Refer to architectural comments	3	Urinal full height wall types are no longer code compliant under new construction threshold.
Lavatory:	Wall hung & countertop types	No / No	Refer to architectural comments	3	Below countertop or lavatory fixture exposed piping does not meet ADA code requirements to provide insulation to all exposed piping, including offset drain strainers.
Drinking Fountain/Water Cooler:	Wall hung / Floor mounted	No / No	No	3	
Mop Sink:	Mop sink basin / floor type	No / No	N/A	3	Several with threaded connections require integral vacuum breakers
Showers:	N/A				No showers present

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Appears to be sufficient quantities. 8
Wall Hydrant:	Appears to be sufficient quantities. 8
Floor Drain:	Not present in rest rooms. Recommend providing. Required per latest IPC. 3M
Emergency Shower / Eyewash:	N/A. Recommend having one within Mechanical / Boiler rooms. Portable emergency eye wall hung to comply.
Faucets:	ADA designated sinks and lavatories shall have wing handles, sensor of push down metering types

PLUMBING NOTES

1. Priority 1: Refer to City Hall recommendation to provide thermostatic / pressure mixing valve assembly on existing Domestic hot water (DHW) boiler / indirect storage tank to assure 110 degrees F. maximum distributed throughout all three buildings (Fire Department, Police Station and City Hall).
2. Priority 2: Recommend back water valve to avoid any street back pressure do to combined sewer / storm drain system. Recommend replacing all roof drains with dual (Primary and secondary storm outlets to tie into existing single storm system) integral cast iron roof drains to avoid any deep pooling on roof levels if primary storm inlet become blocked do to debris.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
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3. Priority 3: Recommend replacing all public and / or ADA faucets with new sensor or metered type low flow faucets.
4. Priority 4: Provide all exposed piping below all ADA lavatories to be insulated, complete with offset drain strainers.
5. Priority 5: Several Janitors sinks have non compliant threaded faucets without integral vacuum breakers. Recommend replacing with new faucets.
6. Preventative maintenance: Observed cast iron lateral pipe repairs. Recommend replacing at failed locations on a needed basis.
7. Preventative maintenance: Majority of domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and gain energy efficiencies.
8. Preventative maintenance: All laterally running storm piping to be insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion and water dripping on ceilings to avoid staining.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Typical Classrooms	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Kitchen:	NA	NA	NA	NA	NA
Stairs:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Natural Gas	Furnace (1st Floor)	Trane Executive "High Efficiency"	Unknown	6 See Comments 1, 2 & 4
Cooling Equipment #1:	Natural Gas/electric	RTU (2nd Floor)	Unknown	unknown	Unknown See comment 3
Exhaust Equipment #1:		DX	With Furnace 7 RTU		

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Equipment:						
Cooling Distribution Equipment:						
Air Distribution Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment – Typical Classrooms:	Minimal (women's Room)	Residential BR combo light fixture	Unknown	Light switch	Unknown	3
	Minimal (Men's Room)	Residential Sidewall BR	Broun	Light Switch	Unknown	3 See comment 5

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. There is no outside air connection to the unit only minimal combustion air from the outside.
2. The entire 1st floor has a strong musty/ moldy smell.
3. The 2nd floor is served by an RTU the condition of which is unknown as there was no roof access.
4. The duct distribution was all flex on the first floor and large portions of the second floor.
5. While minimal exhaust has been provided to the toilet area none is available in the showers.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

- Rework the first floor HVAC system.
    - Provide a new Air Handler with outdoor air capabilities.
    - New AHU to have gas furnace heat and DX cooling.
    - If the new split indoor unit will not fit into the existing mechanical room use an all outdoor unit to be located on the ground and ducted back inside.
    - Replace the ineffective flex duct with sheet metal ductwork.
- Evaluate the condition of the RTU serving the second floor and replace as necessary.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

ELECTRICAL

	Size	Volts/ Phase	Type	Condition	Notes
Service:	200amps	208/120v 3ph	Underground	4	1

Transformer:	Pole		NGrid		

Emergency Generator:	Diesel	208/120V, 3ph	Manual	7	2

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes
Distribution System:	Circuit breaker	Circuit breaker panelboards	Metal clad cable, conduit and wire	7	3

Devices	Type				
Offices:	Duplex	Grounding		5	4
Lobby:	Duplex	Grounding		5	
Corridor:	Duplex	Grounding		5	
Toilets:	Duplex	Grounding	GFI	5	

Lighting	Type	Style	Condition	Notes
Offices:	Fluorescent	Lensed	5	5
Lobby:	Fluorescent	Lensed	5	
Corridors:	Fluorescent	Lensed	5	
Muster	Fluorescent	Lensed	5	
Toilets:	Fluorescent	Lensed	5	
Stairs	HID	Lensed	3	
Shops	T5 Fluorescent	Open louver	8	
Lighting Controls:	Manual/automatic	Switches, minimal ceiling and wall occupancy sensors, photocells	5	

Site Lighting	Lamp Type	Mounting	Condition	Notes
Parking:	HID	Pole/ Wall	5	
Walkways:	NA			
Building Entrances:	NA			

Security System		Locations			
CCTV:	Exterior	Yard, Accesses, Exits		8	7
Door Access Controls:	N/A				
Detection Devices:	IR			3	

Communications System		Locations	Devices		
Master Clock / Program:	N/A				7
PA System:	N/A				
Cable TV	Cox	Lounge Area	Wall Jack		

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

Tele/Data/Video System	System Devices	Type	Equipment	Condition	Notes
Offices:	T/D			5	8
Multipurpose Room:	T/D			5	
Shops	T/D			5	

Local Sound Systems	System Devices	Type			
Auditorium:	N/A				

	Type	Manufacturer	Controls	Condition	Notes
Emergency Lighting:	Via generator		5	9	
Exit Lighting:	Fluorescent		3	9	

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Analog	EST	Horn/Strobes	5	10
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Condition	Notes
Offices:	HD Analog	Limited HS		3	
Corridors:	HD Analog	Limited HS	At egresses	3	
Electric Service:	HD Analog	Limited HS		3	
Toilets:	HD Analog	Limited HS		3	
Sprinkler Service	HD Analog	Tamper and Flow switches?		3	
				3	
Air Handling Units	NA	Duct smoke Detectors?			
Municipal Notification			Radio Maser Box		
Knox Box			No		

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Remove all stored materials from electric rooms. Improved labeling of circuit breakers, panelboards and directories needed. FanTech UPS needs hardwired connection not supported from data cabling.
2. Generator service shared with DPW in adjacent lot. Automatic service transfer during power outages. Recommend upgrade to
3. Service and distribution equipment of advanced age and in poor shape; Panels have obsolescence issues for repair parts. Insurance company has cited garage panels as a safety hazard; immediate replacement needed. Recommend confirmation of all loads with updated labeling and circuit directories. Recommend placard for emergency generator service procedures and updated labeling of all equipment. Tandem breakers observed in panels
4. Most locations have adequate receptacle coverage. Recommend GFI protection for janitor, exterior and toilet area. Most receptacles observed were of the grounding type.
5. Lighting appears to be adequate and well maintained. Lighting was of various ages, suggesting numerous and limited automatic controls were observed; recommend

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M – Missing

expansion given transient use of building. Recommend replacement addition of lighting at access stairs to upper floor including emergency battery units.

6. Exterior lighting needs improvement at doorways. No exit discharge lighting for emergency egress was observed.
7. Intrusion alarm system consists of door contacts and motion detectors in selected locations. Better coverage recommended at high value areas.
8. Communications systems are limited to cable TV and voice and data outlets.
9. Minimal exit signage observed. Exit discharge lighting missing. Recommend emergency battery units and exit signs with batteries for areas with emergency lighting with generator service including areas where security or officer safety is a concern. Addition of emergency bypass relays to turn on emergency lighting in off mode during power failure is required by RI Fire Code.
10. Fire alarm system control panel is analog type with analog detectors; recommend system update to addressable type devices including new device loops, with expanded manual station coverage, audio/visual notification and automatic detector coverage above and below ceilings. Detection observed above ceilings over 24” in height. As a minimum recommend expansion of heat detectors to 100% coverage with additional horn strobe units in offices, toilets and common areas.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Alum/Glass	P/Pull	7
Exterior/Egress Doors:	3'-0"	HM	P/Pull	7
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –				
Offices:	3'-0"	WD/HM	Knob	7
Corridor:				
Stairs:	3'-0"	HM	P/Pull	7
Toilets:	3'-0"	WD/HM	Knob	7

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	48"	Conc.		5
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Toilet/shower rooms- first floor, Not ADA		4
Toilet Rooms:	Toilet/shower rooms- second floor, Not ADA		4
Drinking Fountains:	N/A		
Public Tele:	N/A		
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility:	**SLATER PARK OFFICE**
Address:	850 Armistice Boulevard Pawtucket, Rhode Island
Name of Owner:	City of Pawtucket
Building Use Group:	
Use Description:	Office
Years in Service:	139
Year Constructed:	1874
Additions:	
Existing Drawings:	No
Gross Square Feet:	2.297

Designer:

Designer:

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Provide a lobby and waiting area for three to four people
2. Provide a work room

SITE

1. Provide ADA accessible parking space at front of building.
2. Make front door ADA accessible.

STRUCTURE

1. Extend drain under deck away from supporting deck posts.
2. Given limited structural capacity, verify floors are not overloaded with too many heavy items in one area, such as file cabinets, copying machines, or bookshelves.

EXTERIOR ENVELOPE

No priority recommendations

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

INTERIOR FINISHES

1. Upgrade all interior finishes including floors, walls and ceilings.

PLUMBING

1. Insulate all domestic water piping to avoid condensation and minimize corrosion.

AUTOMATIC FIRE SUPPRESSION

No priority recommendations

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

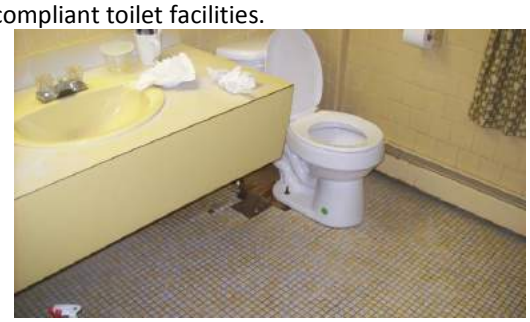
1. Replace individual window air conditioning units with a single outside condenser and four or more ductless split, variable refrigerant inside units.
2. Replace the residential grade baseboard radiation with a heavier commercial grade product

ELECTRICAL

1. Provide label at temporary generator connection; re-locate fused switch out of stairway to floor below; improve labeling.
2. Update circuit directories.
3. Replace wiring and wiring.
4. Provide code compliant exterior lighting particularly at rear stairs.
5. Provide exit discharge lighting for emergency egress.

PROVISIONS FOR ACCESSIBILITY

1. Provide ADA compliant toilet facilities.



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N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	No issues discussed.
Room Quantity:	There is a need for a lobby and waiting area for three to four people.
Room Qualities (Fit-up):	There is a need for a work room.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	No issues discussed.
Remarks:	No issues discussed.
Notes:	

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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	0.3 Acres (Approximate)
Lot Area:	Part of Slater Park
Topography:	West half of site is relatively flat; Site slopes down steeply from West to east behind the building.
Wetlands:	Forested wetlands are located within 300' of the building

	Size *(If septic system – verify if aggregate systems applies)*	Material	Source of Info	Date Installed	Conditions
Utilities –Sanitary:	N/A	N/A	N/A	N/A	N/A
Water:	N/A	N/A	N/A	N/A	N/A
Electricity:	Overhead wires observed	N/A	Site Visit	N/A	8
Gas:	N/A	N/A	N/A	N/A	N/A
Oil Tank:	N/A	N/A	N/A	N/A	N/A
Storm Water Management:	Overland flow to Street or Paved parking area east of building; Downspouts from roof runoff discharge above ground at rear of building	N/A Aluminum Gutters & Downspouts	Site Visit Site Visit	N/A N/A	N/A 8
Service Areas:	Parking Lot at rear of building or along main Park road.	Bit. Pavement	Site Visit	N/A	Parking Lot: 7 (Repair/Re-pave in 5-7 years)
Parking Lots:	Rear - 510 SF; 4 spaces Front Road – 700 SF Front Road – 400 SF	Bit. Pavement Bit. Pavement Gravel	Site Visit Site Visit Site Visit	N/A N/A N/A	Rear - 7 Repair/Re-pave in 5-7 years. Front – 8

	Type:	Source	Date Installed	Conditions
Site Lighting:	Front – Street Pole Light Rear – Decorative Metal Pole light	Site Visit Site Visit	N/A N/A	8 8
Fire Hydrant:	1 Hydrant located approximately 300 feet from Bldg	Site Visit / Aerial	N/A	8

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

	# Spaces	Material	Date Installed	Conditions
Parking Lots:	Rear – 4 spaces Street Paved – not striped Street Gravel – not striped	Bit. Pavement Bit. Pavement Gravel	N/A N/A N/A	7 8 5
Public Access Area:	Park Street	Bit. Pavement	N/A	8
Vehicle Storage	None	N/A	N/A	N/A
Loading & Service	None designated – either at front on street or at rear of building	Bit. Pavement	N/A	See parking Lots
Signage:	Not adequate	1 wood building sign	N/A	9
Trash Management Area:	None designated	N/A	N/A	N/A

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:	4' at front walkway	Bit. Pavement; Condition – 8, bumpy
Walkways:	Front – 5' Side – 4' Rear – 3'	Concrete; Condition - 8 Concrete transitions to pressure treated wood; Condition – 7/8 Bit. Pavement / Concrete; Condition - 8
Ramps:	Side – 3.5' Stairs down to Back – 3.5'	Pressure treated wood; Condition 7/8 Pressure Treated wood; Condition 7/8
Parking:	No accessible spaces designated	N/A

SITE NOTES

1. No designated accessible parking spaces provided. Would need to be located in front since rear side of building is not accessible. Front door is not accessible. Side entrance is, though sign on door says to use front entrance.
2. There is no signage allowing or prohibiting parking on street in front of building. Street has been widened north of building for parking, but no signage or striping has been provided. Edge of pavement at widened area of roadway is cracking and breaking off since the adjacent gravel is depressed below the road. Gravel strip on opposite side of road appear that it is used for parking, but no signage has been provided.
3. Retaining wall at rear of building is in good overall condition except for one fairly significant crack in one area from top to bottom.
4. Old trailer and metal shed observed behind building.
5. Large concrete shelter observed on north side of building.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Stone foundation walls		8
Vertical Support Systems:	2x4 wood stud walls		8
Floor Framing System:	2x 6 and 8 wood framing joists	Floor boards are uneven. Typical for the age and framing system of house.	8
Ground:	Slab-on- Grade		8
Upper Floors:	2x6 and 2x8 wood joists with 1x decking...	Generally, in sound condition.	8
Roof Framing System:	2x rafters with 1x decking...	Generally, in sound condition.	8
Lateral Force Resisting System:	Wood framed walls with limited capacity.	Generally, in sound condition.	8

STRUCTURE NOTES

1. Old wood framed residential structure with rough sawn wood girders and wood joists framed into girders with mortise and tenon joints.
2. Roof shingles appear relatively new...
3. Wood stairs and deck are relatively new framed with 2x pressure treated lumber with connections utilizing metal joist hangers.
4. Drain under deck should be extended away from posts supporting deck.
5. Given the age of the structure, and the limited load carrying capacity, caution should be used to not overload the floors with too many heavy items in one area, such as file cabinets, copying machines, bookshelves, etc.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	WD, Painted		7
Exterior Trim/Fascia:	WD, Painted		7
Sloped Roof Assembly:	Asphalt shingles		5
Flat Roof Assembly:			
Windows:	Wood, double-hung with aluminum storms		5
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:	Wood with aluminum storms		5
Interior:	Wood		5
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Building is an historic house converted to office use.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB/WD	CPT/VCT	GWB	5	4	4	
Lobby:	GWB/WD	VCT	GWB	5	4	4	
Corridors:	GWB/WD	CPT	GWB	4	4	4	
Stairs:	WD/GWB	CPT	GWB	4	4	4	
Toilets:	CT/GWB	CT	GWB	4	2	4	
Service/Mechanical:	PLAS/BRK	CONC	N/A	3	4	N/A	

INTERIOR FINISHES NOTES

1. Finishes are residential grade, very tired, look to be 25 years old.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:

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Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water:	**¾"**	**½"**	**None**	**Unk.**	**Copper**	Private	5 years	
Propane Gas:	NA	**N/A**	**NA**	**NA.**	NA	**Oil Tank**	**NA**	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper, / 7	Glass Fiber / M	Not all copper rough piping is insulated
Domestic Hot Water:	Copper, / 7	Glass fiber / M	Not all copper rough piping is insulated
Sanitary Waste & Vent:	PVC / 7	N/A	Buried, cannot be observed.
Storm Drainage:	N/A	N/A	Exterior gutter system
Propane Gas:	N/A	N/A	
Non-Potable (Lab) CW:	Copper, / 7	None / M	
Non-Potable (Lab) HW:	Copper, / 7	None / M	
Acid (Lab) Waste & Vent:	N/A	N/A	
Kitchen Waste:	N/A	N/A	
Tempered Water:	N/A	N/A	

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Indirect Storage	8 years	6	
Sanitary Ejector Pump:	N/A	N/A	N/A	
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	
Interior Kitchen Grease Trap:	N/A	N/A	N/A	

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Tank type	1.6 GPF / N/A	No	5	
Urinal:	Flush valve / Wall hung	1.0 GPF / N/A	No	5	
Lavatory:	Self rimming / Wall and Countertop	1.5 gpm / No	No	5	
Drinking Fountain/Water Cooler:	N/A	N/A	N/A	N/A	
Sink	S.S / Countertop	2.0 gpm / No	No	5	
Classroom Bubbler / Drinking Fountain	N/A	N/A	N/A	N/A	
Mop Sink:	None	N/A	N/A	N/A	
Showers:	None				

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	One within building boiler space
Wall Hydrant:	Two on exterior of building
Floor Drain:	None present
Emergency Shower / Eyewash:	None present
Emergency Eyewash:	None present
Lab Faucets:	NA
Lab Gas Cocks:	NA

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING NOTES

1. Preventative maintenance: Domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion to increase life expectancy and gain energy efficiency cost savings.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:	NA	NA	NA	NA	NA	NA
Water Service Entrance #2:	NA	NA	NA	NA	NA	NA
Backflow Prevention:	NA	NA	NA	NA	NA	NA

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:	NA	NA	NA	NA	NA

		Type of Head	Zone	Date of Installation	Conditions
Suppression System	NA	NA	NA	NA	NA
Typical Classrooms	NA	NA	NA	NA	NA
Large Spaces	NA	NA	NA	NA	NA
Kitchen:	NA	NA	NA	NA	NA
Stairs:	NA	NA	NA	NA	NA
Fire Department Connections:	NA	NA	NA	NA	NA
Exterior:	NA	NA	NA	NA	NA
Interior:	NA	NA	NA	NA	NA
Shut-Off Valves:	NA	NA	NA	NA	NA
Pre-Action Controls:	NA	NA	NA	NA	NA

Condition Key Criteria:
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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	#2 Oil	CI sectional	Utica (144 MBH output)	2011±	9 See comment 1
Cooling Equipment #1:	Electric	Window Units	Varies		2 to 8 See Comment 2
Exhaust Equipment #1:	Electric	Portable residential	Comfort Air 24 to 30 pint size	Unknown	8 See comment 3

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Equipment:	Varies	Baseboard Fin	Unknown	Hot Water	Unknown	6 See Comment 4
Cooling Distribution Equipment:						
Air Distribution Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment – Typical Classrooms:		Operable Windows				

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				7
General:				
Local:				

HVAC NOTES

1. Small primary pump and three zone pumps, one for each floor including the basement.
2. 2 newer approximately ¾ ton Frigidaire units and two older unknown manufactures of ½ to 1 ton size. Both the older units are badly worn and far less energy efficient than newer models. This site would be an appropriate application for Ductless Split air conditioners.
3. Typical of old basements the basement walls and floors seep moisture and the dehumidifier is necessary.
4. The baseboard fin radiation is of residential grade and as is typical of its class the end caps of the housing are often missing and the front cover is off its bracket in several locations.

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

RECOMMENDATIONS

1. Replace the individual window AC units with a single outside condenser and four or more ductless split, variable refrigerant inside units. This will not only improve the energy efficiency but will give the building exterior a more historical appearance.
2. Replace the residential grade baseboard radiation with a heavier commercial grade product
   - Clean or replace commercial grade radiation.

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N/A – Not applicable/Not available
M – Missing

ELECTRICAL

Electric Service:	Size	Volts/Phase	Type	Conditions	Notes
Service:	200amps	240/120v 1ph	Overhead	5	1

Transformer:	Pole		NGrid	5	

Emergency Generator:	NA				

	Main Disconnect	Circuit Protection	Wiring		
Distribution System:	Fused Switch	Circuit breaker panelboards	Metal clad cable, conduit and wire	2	2

Devices	Type				
Offices:	Duplex	Grounding		4	3
Lobby:	Duplex	Grounding		4	
Corridor:	Duplex	Grounding		4	
Toilets:	Duplex	Grounding	GFI	4	

Lighting	Type	Style		
Offices:	Fluorescent	Lensed	5	4
Lobby:	Fluorescent	Lensed	5	
Corridors:	Fluorescent	Lensed	5	
Assembly:	Fluorescent	Lensed	5	
Toilets:	Fluorescent	Lensed	5	
Stairs	T8 Fluorescent	Lensed	3	
Basement	T8 Fluorescent	Strip	5	
Lighting Controls:	Manual/automatic	Switches, wall occupancy sensors, photocells	5	

Site Lighting	Lamp Type	Mounting	Date of Installation	Conditions
Parking:	HID	Pole		
Walkways:	NA			
Building Entrances:	NA			
Security System		**Locations**		
CCTV:	N/A			
Door Access Controls:	N/A			
Detection Devices:	IR		5	6

Communications System		Locations	Devices		
Master Clock / Program:	N/A				7
PA System:	N/A				
Cable TV	Cox	Office Area	Wall Jack	6	

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D			6	7
Multipurpose Room:	T/D			6	
Lobby:				6	

Local Sound Systems	System Devices	Type			
Auditorium:	N/A				

	Type	Style		Condition	Notes
Emergency Lighting:	NA			NA	8
Exit Lighting:	NA			NA	8

	Type	Manufacturer	Notifications	Condition	Notes
Fire Alarm System:	Security System	NA	NA	7	9
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	NA				
Corridors:	NA		At egresses		
Electric Service:	NA				
Toilets:	NA				
Sprinkler Service	NA				
Basement	NA				
Air Handling Units	NA				
Municipal Notification			Phone dialer		
Knox Box			No		

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge, Fluor-Fluorescent, EBU-Emergency Battery Unit, LED-Light Emitting Diode, T/D- Telephone/data

ELECTRICAL NOTES

1. Overhead service to temp trailer terminates here in meter socket. Capacity seems sufficient. Provide label at temporary generator connection; recommend relocation of fused switch out of stairway to floor below; improved labeling needed.
2. Service and distribution equipment in decent shape. Update of circuit directories needed. Wiring is in poor shape and is a combination of BX, Romex and metal clad cables. Wiring devices would need replacement under rewiring of building.
3. Most locations lack adequate receptacle coverage. Recommend GFI protection for basement, exterior and toilet areas. Most receptacles observed were of the grounding type.
4. Lighting appears to be adequate and well maintained. Lighting was of various ages, suggesting numerous and limited updates. Some energy savings could be realized with updated lamps and ballasts.
5. Exterior lighting almost nonexistent and needs improvement for safety especially at rear stairs. No exit discharge lighting for emergency egress was observed.
6. Intrusion alarm system consists of door contacts and motion detectors in selected locations.
7. Communications systems are limited to cable TV and voice and data outlets.

Condition Key Criteria:

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8. Emergency battery units are not installed. Recommend addition of battery powered exit signs, single battery units, possibly integrated with exit signage in selected locations.
9. Fire alarm system is provided through the security system. Recommend system update to install an addressable type with manual station coverage, audio/visual notification and automatic detector coverage above and below ceilings with radio master box for Fire Dept. response.

Condition Key Criteria:

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2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	Not Accessible	WD	Knob	5
Exterior/Egress Doors:		WD	Knob	5
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways				
Offices:	30-36”	WD	Knob	5
Corridor:	30-36”	WD	Knob	5
Stairs:				
Toilets:	36”	WD	Knob	5

	Size			Conditions
Vertical Access: (Elevators/Lifts)	N/A			

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:	3’=0”	WD/CPT		4
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	Toilet room not ADA compliant, no grab bars, fixtures, room to turn.		4
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility:	**PAWTUCKET ANIMAL SHELTER**
Address:	449 Newport Avenue (In Slater Park) Pawtucket, Rhode Island
Name of Owner:	City of Pawtucket
Building Use Group:	
Use Description:	
Years in Service:	5
Year Constructed:	2008
Additions:	
Existing Drawings:	
Gross Square Feet:	8,506

Designer:	LaPointe Associates, Westport, MA
Designer:	

Condition Key Criteria:

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M – Missing

PRIORITY RECOMMENDATIONS

PROGRAM EVALUATION

1. Provide an additional, easily maintainable cat room (maintenance difficult in existing room since cages are either above head height or below waist height).
2. Provide a cleanup area adjacent to cat isolation and quarantine rooms.

SITE

1. Repair broken and non-functioning bollard lights.
2. Re-direct runoff from gutter near building entrance away from walkway.

STRUCTURE

No priority recommendations

EXTERIOR ENVELOPE

1. Repair fiberboard soffit panels on north side.

Condition Key Criteria:

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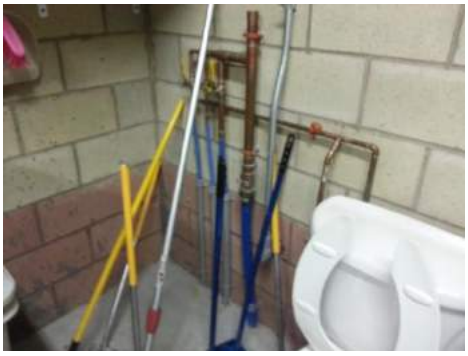
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

INTERIOR FINISHES

1. Extend interior walls and partitions to roof to form code compliant assemblies between different uses.

PLUMBING

1. Pull out all domestic water piping away from non- insulated exterior walls and provide insulated wall with insulated piping attached.
2. Provide supplemental heating within mechanical room.



AUTOMATIC FIRE SUPPRESSION

No priority recommendations

HEATING & VENTILATING SYSTEMS

1. Add variable speed drives to the fans, VAV terminals for Surgery, Exam, Conference room and block zoning of the offices.
2. Modify the control sequence to provide minimal air changes to the exam room, operating room and conference room when they are unoccupied.
3. Conduct a thorough air balancing of the entire facility.
4. Verify that all animal holding areas are negatively pressurized relative to the lobby, offices, etc.
5. Verify that all operating and procedure rooms are positively pressurized.

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

6. Evaluate and optimize the heat recovery wheels on both air handlers:
   - Replace the desiccants as necessary
   - Adjust wheel rotation speed.
   - Review the control algorithm
7. Evaluate the cooling requirements and the capacity of the ERVs to meet the load. Provide larger capacity compressors and condensing unit as necessary.
8. Retro-commission the radiant floor system in the kennel.
   - Determine if the four zones provided by the Engineer were properly manifolded, pumped and controlled.
   - Pressure-test each loop.
   - Bleed and flow test each loop.
   - Reevaluate the control algorithm
     - Determine appropriate slab temperatures and adjust flow and or water temperatures appropriately.
     - Determine under what conditions to operate the outdoor radiant loops.
   - Provide full water balance of the system.

ELECTRICAL

1. Provide blank off plate immediately for open MDP circuit breaker mounting space on bus bars.

PROVISIONS FOR ACCESSIBILITY

No priority recommendations

Condition Key Criteria:

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2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

OVERVIEW

(TBD AFTER FIRST CLIENT REVIEW)

PROGRAM EVALUATION

Room Size:	The long and narrow cat area would function better as a square room.
Room Quantity:	There is a need for more than one cat room.
Room Qualities (Fit-up):	Cages in the cat room should be at eye level rather than above and below. The drop doors in the kennels don't seal closed. (Too light and un-insulated.) The organization of equipment in the prep room is not responsive to the function of the room.
External Adjacencies:	No issues discussed.
Internal Adjacencies:	The cat isolation and quarantine rooms are not adjacent a cleanup area, sink etc. Disposal of the dog feces (toilet) is at the opposite end of the building and across the unheated garage space.
Remarks:	It is difficult for two staff or visitors to pass one another in the narrow cat room. If more than one person is trying to view the cats or maintain the cages, one person must depart the room for the other to circulate within the room. Maintenance is difficult in the cat room because cages are above head height or below waist height. Maintenance must be done from a ladder or from your knees.
Notes:	

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

SITE DATA

	Description
Land Used:	1.6 Acres
Lot Area:	N/A
Topography:	Gentle slopes – North to South
Wetlands:	River located approximately 420' east of site

	Size: *(If septic system – verify if aggregate systems applies)*	Material:	Source of info:	Date Installed	Conditions
Utilities –Sanitary:	(2) - 6" Services that tie into an 8" line	PVC	2007 Design Plans	2008/09	8
Water:	2" Water	Type K Copper	2007 Design Plans	2008/09	8
Electricity:	(2) 4" underground conduits	PVC Ducts (concrete encased)			
Communications:	Underground conduit	N/A	2007 Design Plans	2008/09	8
Gas:	(2) 1,000 gallon liquid propane tanks	Steel	2007 Design Plans	2008/09	8
Oil Tank:	N/A	N/A	N/A	N/A	N/A
Storm Water Management:	6" Roof Drains 6" – 8" conveyance pipes	PVC or HDPE PVC or HDPE	2007 Design Plans 2007 Design Plans	2008/09 2008/09	8 8
Service Areas:	4,200 SF	Bit. Pavement	Site Visit / Aerial	2008/09	8

	Type:	Source	Date Installed	Conditions
Site Lighting:	(2) Pole Mounted fixtures Several Bldg Mounted Fixtures	Site Visit	2008/09	8
Fire Hydrant:	One hydrant located on site	Site Visit	N/A	8

	# Spaces	Material	Date Installed	Conditions
Parking Lot & Driveway:	10 spaces; 6,500 SF	Bit. Pavement	2008/09	8
Vehicle Storage	3 Garage Bays	See Arch	2008/09	8
Loading & Service	4,200 SF	Bit. Pavement	2008/09	8
Equipment Pads	1,300 SF	Concrete	2008/09	8
Signage:	No signage except for Street Sign	Wood	2008/09	8
Trash Management Area:	No exterior locations designated	N/A	N/A	N/A

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material	Conditions
Curb Cuts:	Driveway opening – 32'wide	Bit. Pavement	7
Walkways:	Front Walk: 5' – 9' wide; 1000 SF area	Concrete	8
	Walk and Concrete pen in rear; 1000 SF	Concrete	8
Ramps:	(1) ramp – 4' wide	Concrete	
Parking:	1 space – 9' wide	Bit. Pavement	8

SITE NOTES

1. Parking lot striping starting to fade, especially accessible parking markings.
2. Pavement in parking lot, and service area in front of garage in good overall condition with minimal wear. Only area of deterioration is at entrance to site (curb cut).
3. No curbing provided between parking lot and sidewalk. Currently, a subtle 1"-2" sloped berm exists between lot and sidewalk.
4. Several bollard lights have been hit or vandalized and broken at the bottom, causing them to lean over. Building director noted that several of the bollard lights do not work. Some bollards have exposed wires sticking out of the bottom.
5. Moisture observed on sidewalk right in front of main entrance door. It appears that the source of the moisture is from the gutter near the building corner at the entrance. Problem could lead to slipping/fall hazards during winter months.
6. Roof runoff is collected in a series of leaching structures around the building. A portion of pavement runoff flows overland directly to a stone rip-rap plunge pool. The remaining portion of pavement flows overland into the Slater Park roadway.
7. Ramp at accessible parking space is not ideal as there is a bump between pavement and ramp. May not meet ADA code.
8. No accessible parking sign exists.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:	Reinforced concrete foundation walls		10
Vertical Support Systems:	Load bearing CMU walls		10
Floor Framing System:	N/A single story structure		
Ground:	Slab on grade	See below	8
Upper Floors:	N/A		
Roof Framing System:	Prefabricated Wood Trusses		10
Lateral Force Resisting System:	CMU walls		10

STRUCTURE NOTES

1. The structure is relatively new and therefore in good condition. The only noticeable issue is that there are several shrinkage cracks in the exposed concrete slab. The cracks are most likely the result of the fact that saw cut joints were not made in the long narrow directions of the slab. It was noted by the staff that at one point a sawcut joint was attempted after the radiant heating system in the slab was activated, and the sawcutting hit one of the pipes embedded in the slab. As a result, no further cutting was performed.

A sawcut joint was attempted, but ceased after the radiant heat pipe was damaged. The pipe was repaired, the slab was patched, and the concrete cracked on its own soon after.

Condition Key Criteria:

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2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	CMU, Split Face	Single Wythe, Un-insulated	8
Exterior Trim/Fascia:	Painted Wd, Painted Shingles		8
Sloped Roof Assembly:	Asphalt Shingles		8
Flat Roof Assembly:	N/A		
Windows:	Aluminum/Insulating Glass		8
Clerestory Windows:	Aluminum/Insulating Glass		8
Glazed C- Wall:			
Doors – Exterior:	Aluminum/Insulating Glass Hollow Metal		8 8
Interior:	WD		8
Cross-Corridor:			
Hardware:			

EXTERIOR ENVELOPE NOTES

1. Un-insulated wall construction contributes to difficulties maintaining comfortable interior environment.
2. Wood fiberboard soffit panels on north side are displaced, may be taking on water.

Condition Key Criteria:

1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Interior	Materials – Walls, Floor & Ceiling Original Building			Materials – Walls, Floor & Ceiling Condition			Conditions
	Walls	Floor	Ceiling	Walls	Floor	Ceiling	
Offices:	GWB	CPT	GWB	8	8	8	
Lobby:	GWB	CT	PLAS	9	9	9	
Corridors:	GWB	CT	GWB	8	8	8	
Stairs:							
Toilets:	CT/GWB	CT	GWB	8	8	8	
Service/Mechanical:	CMU	CONC	GWB	8	8	8	
Exam	GWB	VCT	GWB	8	8	8	
Surgery	GWB	Poured	GWB	8	8	8	
Garage	CMU	CONC	PLAS	8	8	8	
Storage	CMU	CONC	BATTS	8	8	8	
Feline Cages	GWB	CT	GWB	8	8	8	
Canine Cages	CMU	CONC	GWB	8	8	8	

INTERIOR FINISHES NOTES

1. Interiors in generally good condition
2. CMU walls in storage areas in garage appear not to extend to roof, if so this is a code violation and should be corrected.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water:	2"	2"	Present	Unk.	Copper	Private	5 years	2" RPZ present
Propane Gas:	1"	N/A	Present	Unk.	Steel	Exterior Propane Tanks	5 Years	

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:	Copper, PEX / 10	Glass Fiber / M	Not all copper rough piping is insulated
Domestic Hot Water:	Copper, PEX / 10	Glass fiber / M	Not all copper rough piping is insulated
Sanitary Waste & Vent:	PVC / 10	N/A	Buried, cannot be observed.
Storm Drainage:	N/A	N/A	Exterior gutter system
Propane Gas:	Black steel , CSST / 10	N/A	
Non-Potable (Lab) CW:	Copper, PEX / 10	None / M	
Non-Potable (Lab) HW:	Copper, PEX ./ 10	None / M	
Acid (Lab) Waste & Vent:	N/A	N/A	
Kitchen Waste:	N/A	N/A	
Tempered Water:	N/A	N/A	

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:	Storage / Propane	5 years	8	
Sanitary Ejector Pump:	N/A	N/A	N/A	
Storm Ejector Pump:	N/A	N/A	N/A	
Domestic Water Booster Pump:	N/A	N/A	N/A	
Interior Kitchen Grease Trap:	N/A	N/A	N/A	

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:	Tank / Wall hung	1.6 GPF / Yes	Yes	8	
Urinal:	Flush valve / Wall hung	1.0 GPF / N/A	Yes	8	
Lavatory:	Self rimming / Wall and Countertop	.5 gpm / Yes	Some	8	
Drinking Fountain/Water Cooler:	N/A	N/A	N/A	N/A	
Sink	S.S / Countertop	2.0 gpm / No	Yes	8	
Classroom Bubbler / Drinking Fountain	N/A	N/A	N/A	N/A	
Mop Sink:	Basin / Floor	No / No	N/A	8	
Showers:	1.0 gpm heads / fabricated stalls				

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	Several within building space
Wall Hydrant:	Several on exterior of building
Floor Drain:	Several interior and exterior trench drains

Condition Key Criteria:

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10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Miscellaneous Fixtures	Miscellaneous
Emergency Shower / Eyewash:	None present within auto garage area.
Emergency Eyewash:	None present within auto garage area
Lab Faucets:	N/A
Lab Gas Cocks:	N/A

PLUMBING NOTES

1. Preventative maintenance: Several areas and within mechanical room domestic water piping is un-insulated. Recommend installation of new fiberglass insulations to avoid condensing of piping to minimize corrosion to increase life expectancy and gain energy efficiency cost savings.
2. Priority 1: Recommend pulling out all domestic water piping (hot and cold) away from non- insulated CMU exterior walls and provide insulated furred out wall with piping attached to new wall.
3. Priority 2: Recommend providing supplemental heating within mechanical room as none is present at the moment. Refer to HVAC assessment.

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:						
Water Service Entrance #2:						
Backflow Prevention:						

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:					

		Type of Head	Zone	Date of Installation	Conditions
Suppression System					
Typical Classrooms					
Large Spaces					
Kitchen:					
Stairs:					
Fire Department Connections:					
Exterior:					
Interior:					
Shut-Off Valves:					
Pre-Action Controls:					

Condition Key Criteria:

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10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:	Gas Gas	Condensing Hot Water (2) ERV furnace	Weil McClain Greenheck	Original Original	9 9
Cooling Equipment #1:	Electric/air Cooled	(2) Energy Recovery	Greenheck	Original	4 See comment 2
Exhaust Equipment #1:		(3) Dome fans	Greenheck	Original	9

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Equipment:		Radiant floor in Kennel	Unknown	Gas hot water	original	2 See Comment 3
Cooling Distribution Equipment:	182 & 246 MBH	DX Air Cooled	Trane	208V 3ph.	Original	5 See Comment 2
Air Distribution Equipment:	10,000± CFM	(2) Energy Recovery	Greenheck	Gas Furnace	Original	7 See comment 1

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical Classrooms:	None CV ERVs				
Offices:					
Library:					
Auditorium:					
Cafeteria:					
Gym:					
Kitchen:					
Corridors:					
Toilets:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment – Office Wing:	4915 S 4365 E	ERV	Greenheck	Return Air Temperature	original	6
Kennels:	6600 S 5400 E	ERV	Greenheck	Return Air Temperature	original	6
Offices						
Corridors:						
Toilets:						

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

There have been numerous installation and operational issues with the HVAC systems since the beginning. The gas and electric bills have been much higher than expected.

1) Air Balance and Odors: -- Upon entering the front door the visitor is immediately hit with the strong odor of cat feces and urine. The Cat adoption area is positively pressurized relative to the lobby. This and other areas show a lack of air balance within the facility.

2) ERV Units –

   a) There has been inadequate energy recovery and the gas furnace must work harder than expected (high gas bills)
   b) Due to lack of heat recovery the condensing units are undersized and a "homemade" water spray system has been attached to cool the condensing coils and improve capacity. The Owner complains that the yard is a swamp all summer.
   c) Both ERVs are single zone constant volume units. ERV-2 serves the kennel and requires a high rate of exchange however ERV-2 serves offices, a conference room, medical exam room and operating room which all have variable occupancies and air requirements.

3) Radiant floors in the kennel –

   a) The Owner reports that he cannot isolate zones as called for in the design.
   b) Unable to turn the exterior heat off separately the entire system has been abandoned.
   c) The slab floor was poured in one piece and numerous cracks have developed. This may impact the integrity of the in slab tubing.
   d) There are apparently leaks in one or more loops.

RECOMMENDATIONS

- Modify ERV-1 for multi VAV zones. Adding Variable speed drives to the fans, VAV terminals for Surgery, Exam, Conference room and block zoning of the offices.
    - Modify the control sequence to provide minimal air changes to the exam room, operating room and conference room when they are unoccupied.
- Conduct a thorough Air balancing of the entire facility.

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N/A – Not applicable/Not available
M – Missing

- All the animal holding areas should be negatively pressurized relative to the lobby, offices, etc. The operating and procedure rooms should be positively pressurized.

- Evaluate and optimize the heat recovery wheels on both air handlers.
  - Replace the desiccants as necessary
  - Adjust wheel rotation speed.
  - Review the control algorithm
- Evaluate the cooling requirements and the capacity of the ERVs to meet the load. Provide larger capacity compressors and condensing unit as necessary.
- Retro-commission the radiant floor system in the kennel.
  - Determine if the four zones provided by the Engineer were properly manifolded, pumped and controlled.
  - Pressure test each loop.
  - Bleed and flow test each loop.
  - Reevaluate the control algorithm
    - Determine appropriate slab temperatures and adjust flow and or water temperatures appropriately.
    - Determine under what conditions to operate the outdoor radiant loops.
  - Provide full water balance of the system.

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ELECTRICAL

	Rating	Voltage	Metering	Date of Installation	Conditions
Service:	800amps	208/120v 3ph	Underground	9	

Transformer:	Pole		NGrid		

	Type/Fuel	Volts/Phase	Transfer Switch		
Emergency Generator:	N/A			N/A	

	Main Disconnect	Circuit Protection	Wiring	Condition	Notes:
Distribution System:	Circuit breaker	Circuit breaker panelboards	Metal clad cable, conduit and wire	9	1

Devices	Type			Condition	Notes:
Offices:	Duplex	Grounding		9	
Lobby:	Duplex	Grounding		9	
Corridor:	Duplex	Grounding		9	
Toilets:	Duplex	Grounding	GFI	9	
Garages:	Duplex	Grounding	GFI	9	

Lighting	Type	Style	Condition	Notes:
Offices:	Fluorescent	Lensed	9	2
Lobby:	CFL	Decorative Pendant	9	
Animal Exam Area:	Fluorescent	Lensed	9	
Animal Viewing Area	Fluorescent	Lensed Vaportight	9	
Toilets:	Fluorescent	Lensed	9	
Animal Sallyport Area	Fluorescent	Lensed Vaportight	9	
Cage washing	Fluorescent	Lensed Vaportight	9	
Toilets	Fluorescent	Lensed	9	
Corridors	CFL	Downlights	9	
Lighting Controls:	Manual/automatic	Switches, wall occupancy sensors, photocells	9	

Condition Key Criteria:

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N/A – Not applicable/Not available
M – Missing

Site Lighting	Lamp Type	Mounting	Date of Installation	Conditions
Animal Runs	Fluorescent, LED	Ceiling Vaportight, Wall LED	9	3
Parking:	LED	Pole floods	9	
Walkways:	HID	Bollard, Wall	9	
Building Entrances:	LED	Wall	9	
Building Egresses	LED	Wall	9	
Grounds	LED	Pole floods	9	
Vehicle Parking	HID	Wall flood	9	
Security System		Locations		
CCTV:	N/A			
Door Access Controls:	N/A			
Detection Devices:	IR		9	4

Communications System		Locations	Devices		
Master Clock / Program:	N/A				5
PA System:	N/A				
Cable TV	N/A				

Tele/Data/Video System	System Devices	Type	Equipment		
Offices:	T/D				5
Animal Exam Areas	T/D				5
Lobby:	T/D				5

Local Sound Systems	System Devices	Type			
	N/A				

Condition Key Criteria:

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5-7 – Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type	Manufacturer	Controls	Date of Installation	Conditions
Emergency Lighting:	Local EBU	Individual battery units in selected locations	9	6	
Exit Lighting:	LED	Internally illuminated with battery backup,	9	6	

	Type	Manufacturer	Notifications	Date of Installation	Conditions
Fire Alarm System:	Addressable	FCI	Horn/Strobes	9	
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Offices:	HD	HS		9	
Corridors:	SD	HS	At egresses	9	
Electric Service:	SD	HS		9	
Toilets:	HD	HS		9	
Sprinkler Service	NA	Tamper and Flow switches		93	
Air Handling Units	NA	Duct smoke Detectors?		9	
Municipal Notification			Radio Maser Box	9	
Knox Box			Yes	9	

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge

ELECTRICAL NOTES

1. MDP has open circuit breaker mounting space on bus bars. Provide blank off plate immediately.
2. Lighting appears to be adequate and well maintained.
3. Exterior bollard lighting needs proper pole base and mounting; recommend replacement with LED for energy efficiency.
4. Intrusion alarm system consists of door contacts and motion detectors in selected locations
5. Communications systems are limited to cable TV and voice and data outlets.
6. Emergency battery units are well maintained. Nonfunctioning unit at front reception adjacent to Cat Adoption Room.

Condition Key Criteria:

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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	Yes, See Site Assessment

	Width	Material	Hardware	Conditions
Primary Entrance:	3'-0"	Aluminum/Glass	P/Pull	8
Exterior/Egress Doors:	3'-0"	HM		8
Signage:				8

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:		CT		8
Interior Doorways –	3'-0"	WD	Lever	8
Offices:	3'-0"	WD	Lever	8
Corridor:	3'-0"	WD	Lever	8
Stairs:				8
Toilets:	3'-0"	WD	Lever	8

	Size			Conditions
Vertical Access: (Elevators/Lifts)				N/A

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:				
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:	ADA Accessible		8
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

BUILDING EVALUATION REPORT

GENERAL INFORMATION

Name of Facility:	**VFW GATCHELL POST**
Address:	171 Fountain Street Pawtucket, Rhode Island
Name of Owner:	City of Pawtucket
Building Use Group:	**A-3** Occupancy
Use Description:	Assembly Hall
Years in Service:	
Year Constructed:	Designer:
Additions:	Designer:
Existing Drawings:	Original construction only, No existing conditions drawings
Gross Square Feet:	

Condition Key Criteria:
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N/A – Not applicable/Not available
M – Missing

CONSTRUCTION CLASSIFICATION DATA

Construction Type: (from State Building Code)	
Original Building:	
Addition 1:	Bathrooms at East elevation
Addition 2:	
Occupancy Group:	
Area Sub-Basement:	
Basement:	
Ground Floor:	
Upper Floors – 2nd:	
Upper Floors – 3rd :	
Total:	

	Height	# of Stories
Main Building:		
High Bay Space:		
Addition 1:		
Addition 2:		

Request was to inspect a City owned structure suspected of having roof issues of some sort. Client would like an opinion on the merit of full roof replacement, or could be addressed using minor rehab measures that the Cities maintenance team might provide.

Focus of investigation was on caused of visual leaks within the walls of the back bathroom walls.

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

PROVISIONS FOR ACCESSIBILITY

Exterior – Accessible Route:	Width	Material
Curb Cuts:		
Walkways:		
Ramps:		
Parking:		

SITE NOTES

1. Existing wood constructed handicap ramp along the South Elevation.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

BUILDING SYSTEMS & ASSEMBLIES OF BUILDINGS

Structure	Material	Remarks	Conditions
Foundation System:			
Vertical Support Systems:			
Floor Framing System:			
Ground:			
Upper Floors:			
Roof Framing System:			
Lateral Force Resisting System:			

STRUCTURE NOTES

1. There is a PVC pipe that was recently installed. During such an installation, the installer notched out the floor joist. Recommend sistering this floor joist with another of same size and length.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Exterior Envelope	Material	Remarks	Conditions
Exterior Wall Assembly:	Brick, cast stone	See Below	8
Exterior Trim/Fascia:	Wood	See Below	3
Sloped Roof Assembly:	Slate shingles	Various locations were slate tiles are cracked, broken or missing	2 & 8
Flat Roof Assembly:	Flat roofs constructed by user		1
Windows:	Double-hung, replacement, aluminum		
Clerestory Windows:			
Glazed C- Wall:			
Doors – Exterior:			
Interior:			
Cross-Corridor:			
Hardware:	Exterior Lock	Panic Hardware required	1

EXTERIOR ENVELOPE NOTES

1. An addition to the existing structure was constructed on the East elevation using like materials to match existing structure. Slate roof shingles at this location are slightly different in color. Addition is as wide as existing building and approx. 8' wide. This addition was constructed for the purpose of providing a Men and Women's bathroom along with proving a stair access to the Basement from the exterior South elevation and parking lot.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

2. User has constructed a flat roof between the building and separate garage structure.

Condition Key Criteria:
1 – System Failure
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5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

3. This roof is the suspected cause of the water leaks within the bathroom walls. As shown in the photo above, the flat roof is constructed along closed in windows of the bathrooms. It is suspected that there is lack of flashing between these windows and the flat roof. Any heavy accumulation of snow against these closed off windows would most certainly allow moisture to penetrate at the window jambs. No ladder was available to get on the roof to investigate this further. The slate roof shingles above these bathrooms look in relatively good shape. There are loose tiles at the transition area from existing slate to the added roof addition slate shingles.

4. Another area of concern is the intersection of the two roof planes as indicated in the photo below. There are indications that water may be penetrating at this intersection. There is a large opening at the very bottom of the existing to new roof addition. There lower slate roof shingles are coming loose. Looking further at this area, one cannot visually tell is there is any asphalt underlayment under these shingles.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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N/A – Not applicable/Not available
M – Missing

5. Wood fascia along shingles edges should be replaced with new in the next 5-10 years. There is noticeable wear and tear such as splintering and rot especially at the South elevation in the center of the building.

6. At the main entrance there are signs of water damage of underside wood angled ceiling. The slate shingles directly located above this space are in relatively good shape. Upon further investigation, the gutter directly located at this entrance was completely blocked with dirt and debris. At the time of the inspection, it had just stopped raining and water was standing to the edge of the gutter. It may be that snow and ice dams may be the cause. Where melting snow and ice may actually work its way up and under the shingles. Recommended to Post Commander, Maurice P. Trottier that he annually clean this gutter. Downspout is missing at the end. Recommend removing existing slate shingles above this area to determine actual cause of leak. Removed shingles should be re-installed once investigation is complete. Any damaged and/or rotted wood members should be replaced at that time.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

7. There are locations where there are loose wood finish boards at wood shingle siding to slate transition at east elevation.

8. Recommend adding snow guards along roof directly above the handicap ramp and entrance.

9. Neighbor on North elevation side indicated that there is substantial snow avalanche off of the north roof onto her driveway. Snow guards installed along this driveway could alleviate this issue.

10. Water damage visible on ceiling wood panels directly above stairway to Basement. At exterior slate shingles look in relatively good shape. The only questionable item that may need to be investigated further is the wall flashing along the roof edge seems to be loose and coming away from wall.

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
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M – Missing

11. An investigation of the Basement directly below the bathroom area in question did not indicate any areas where water may have penetrated. The floor joist did indicate that

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
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N/A – Not applicable/Not available
M – Missing

there have been various floor leaks over the years with regards to the toilets. Recommend removing existing slate shingles above this area to determine actual cause of leak. Removed shingles should be re-installed once investigation is complete. Any damaged and/or rotted wood members should be replaced at that time.

12. There were visual signs of asbestos piping insulation and existing plaster Basement ceiling looked questionable.

13. Recommend changing out and removing exterior lock on Entry door. This door should have panic hardware.

14. Recommend that a Fire Department Knox box be install approx. 6' above floor on exterior of building at entry.

15. No visible signs of water in existing drop-down ceiling system in the main Assembly area.

GENERAL NOTES

In order to full asses the need for a full roof replacement, it would be necessary to access the existing space above the drop down ceiling or any other accessible attic spaces. A visual inspection of the ceiling tiles didn't indicate any existing roof leaks.

Some areas where there is noticeable water damage at the Basement stair and Entry locations should have the slate tiles temporarily removed and reinstalled to determine if wall flashing at these locations are a cause of this leak.

ABBREVIATIONS

BRK – Brick Masonry
CMU – Concrete Masonry Unit, or Concrete Block
WD – Wood
CONC - Concrete
ACT – Suspended Acoustic Tile Ceiling
CSAT – Suspended Concealed Spline Acoustic Tile
PLAS – Plaster
GWB – Gypsum Wallboard
VCT – Vinyl Composition Tile
VAT – Vinyl Asbestos Tile
CPT – Carpet
VB – Vinyl Base
RBR – Rubber Treads & Risers/Tile
CT – Ceramic Tile
QT – Quarry Tile
* – Suspected Asbestos Containing Material.

Condition Key Criteria:
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N/A – Not applicable/Not available
M – Missing

PLUMBING SYSTEM

Service	Pipe Size	Meter Size	Pressure Regulator	Oper. Pressure	Pipe Material	Source	Age	Miscellaneous
Water:								
Gas:								

System	Pipe Material / Condition	Type Insulation / Condition	Miscellaneous
Domestic Cold Water:			
Domestic Hot Water:			
Sanitary Waste & Vent:			
Storm Drainage:			
Gas:			
Non-Potable (Lab) CW:			
Non-Potable (Lab) HW:			
Acid (Lab) Waste & Vent:			
Kitchen Waste:			
Tempered Water:			

Equipment	Type/Fuel	Age	Condition	Miscellaneous
Domestic Water Heater:				
Sanitary Ejector Pump:				
Storm Ejector Pump:				
Domestic Water Booster Pump:				
Interior Kitchen Grease Trap:				

Plumbing Fixtures	Type/ Installation	Low Consump/ Metering	Accessible	Condition	Miscellaneous
Water Closet:					
Urinal:					
Lavatory:					
Drinking Fountain/Water Cooler:					
Classroom Sink					
Classroom Bubbler / Drinking Fountain					
Mop Sink:					
Showers:					

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Miscellaneous Fixtures	Miscellaneous
Hose Bibb:	
Wall Hydrant:	
Floor Drain:	
Emergency Shower / Eyewash:	
Emergency Eyewash:	
Lab Faucets:	
Lab Gas Cocks:	

Condition Key Criteria:
1 – System Failure
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5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

AUTOMATIC FIRE SUPPRESSION SYSTEM

	Size	Material	Location	Flow/Pressure	Date of Installation	Conditions
Water Service Entrance #1:						
Water Service Entrance #2:						
Backflow Prevention:						

	Size/Pressure	Manufacturer	Energy Source	Date of Installation	Conditions
Fire Pump:					

		Type of Head	Zone	Date of Installation	Conditions
Suppression System					
Typical Classrooms					
Large Spaces					
Kitchen:					
Stairs:					
Fire Department Connections:					
Exterior:					
Interior:					
Shut-Off Valves:					
Pre-Action Controls:					

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HEATING & VENTILATING SYSTEMS

Centralized Systems	Energy Source	Type	Manufacturer	Date of Installation	Conditions
Heating Equipment #1:					
Cooling Equipment #1:					
Exhaust Equipment #1:					

Distribution Systems	Size	Type	Manufacturer	Energy Source	Date of Installation	Conditions
Heating Distribution Equipment:						
Cooling Distribution Equipment:						
Air Distribution Equipment:						

Terminal Equipment	Type	Manufacturer	Controls	Data of Installation	Conditions
Typical Classrooms:					
Offices:					
Library:					
Auditorium:					
Cafeteria:					
Gym:					
Kitchen:					
Corridors:					
Toilets:					

Ventilating Equipment	CFM	Type	Manufacturer	Controls	Date of Installation	Conditions
Ventilating Equipment – Typical Classrooms:						
Offices						
Library:						
Auditorium:						
Cafeteria:						
Gym:						
Kitchen:						
Corridors:						
Toilets:						

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

HVAC Controls	Type	Manufacturer Controls	Date of Installation	Conditions
Controls:				
General:				
Local:				

HVAC NOTES

1. Many Controls leaks.
2. Ventilations in classrooms of the original building comes in the unit vents, gets transferred to the corridors and is exhaust through corridor exhaust fans.

Condition Key Criteria:
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8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

ELECTRICAL

	Rating	Voltage	Metering	Date of Installation	Conditions
Service:					

Transformer:					

Emergency Generator:					

	Main Disconnect	Circuit Protection	Wiring		
Distribution System:					

Devices	Type				
Typical Classrooms:					
Offices:					
Gym/Cafeteria:					
Library:					
Lobby/Corridor:					
Toilets:					

Lighting	Type	Style		
Typical Classrooms:				
Offices:				
Library:				
Gym/Cafeteria:				
Lobby/Corridor:				
Toilets:				
Lighting Controls:				
Theatre Lighting System:				

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

Site Lighting	Lamp Type		Mounting	Date of Installation	Conditions
Sports Fields:					
Parking:					
Walkways:					
Building Entrances:					
Security System		Locations			
CCTV:					
Door Access Controls:					
Detection Devices:					

Communications System		Locations	Devices		
Master Clock / Program:					
PA System:					

Tele/Data/Video System	System Devices	Type	Equipment		
Typical Classrooms:					
Offices:					
Library:					
Computer:					
Gym/Cafeteria:					

Local Sound Systems	System Devices	Type			
Gym/Cafeteria:					

Condition Key Criteria:
1 – System Failure
2-4 – Items To Be Replaced Within 3 Years
5-7 - Items To Be Replaced Within 5 Years
8-9 – Items Requiring Regular Maintenance
10 – Best Condition, New
Not Compliant – Items that do not meet codes and/or are not compliant.
N/A – Not applicable/Not available
M – Missing

	Type	Manufacturer	Controls	Date of Installation	Conditions
Emergency Lighting:					
Exit Lighting:					

	Type	Manufacturer	Notifications	Date of Installation	Conditions
Fire Alarm System:					
Fire Alarm Devices	Detector Type	Alarm Signal Type	Pull Station	Date of Installation	Conditions
Typical Classrooms:					
Offices:					
Library:					
Gym/Cafeteria:					
Lobby/Corridor:					
Storage/Service:					
Toilets:					

HS – Horn/Strobe, SD – Smoke Detector, HD – Heat Detector, HID – High Intensity Discharge

ELECTRICAL NOTES

1. Electrical service equipment is of advanced age located in areas with water bearing piping and some working clearance concerns. Distribution system is fully utilized and lacks spare capacity and physical space for expansion capability for distribution system additions.
2. Classrooms receptacle locations are minimal and need expansion.
3. Exterior lighting is provided by lighting rented from Utility Co.
4. Exit discharges lack proper emergency illumination.
5. Automatic lighting controls are minimal, primarily photocells and time clocks for exterior lighting.
6. Paging intercom system lacks handsets in classrooms.

Condition Key Criteria:
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PROVISIONS FOR ACCESSIBILITY

Exterior Accessible Route	
Accessible Route:	

	Width	Material	Hardware	Conditions
Primary Entrance:				
Exterior/Egress Doors:				
Signage:				

Interior Accessible Route	Width	Material	Hardware	Conditions
Accessible Route:				
Entrance Vestibules:				
Interior Doorways –				
Offices:				
Corridor:				
Stairs:				
Toilets:				

	Size			Conditions
Vertical Access: (Elevators/Lifts)				

	Width	Floor Surface	Handrail/Guard Heights	Conditions
Stairways:				
Ramps:				

	Clear Floor Space/Turning Radius	Toilet Partitions	Conditions
Toilet Rooms:			
Tables & Seating			
Drinking Fountains:			
Public Tele:			
Controls:			
Signage:			
Emergency Alarms:			

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"Construction Cost Consultants"

Pawtucket Department of Public Works
Pawtucket, Rhode Island

20-Feb-14

GRAND SUMMARY

CITY HALL - POLICE - FIRE STATION #2	$7,558,012
FIRE STATION #1	$654,397
FIRE STATION #3	$1,098,486
FIRE STATION #4	$917,444
FIRE STATION #5	$777,731
FIRE STATION #6	$535,285
SAYLES AND BURNS LIBRATIES	$3,049,120
SENIOR CENTER/ADULT DAY CARE	$1,278,616
PUBLIC WORKS CENTER/MAINTENANCE	$3,004,800
POLICE ANNEX	$216,460
SLATER PARK OFFICE	$73,978
ANIMAL SHELTER	$167,667
VFW GATCHELL POST	$274,137

GRAND TOTAL	$19,606,134

NOTES:
*Assumes work completed by summer 2015
*Assumes work areas to be unoccupied during construction
* Assumes normal working hours

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Pawtucket, Rhode Island

20-Feb-14

SUMMARY

CITY HALL -POLICE-FIRE STATION #2		$5,789,747

TOTAL DIRECT COST		$5,789,747
GENERAL CONDITIONS	5%	$289,487
GENERAL ADMINISTRATIVE O&P	5%	$303,962
P&P BOND & INSURANCE	1.5%	$95,748
PERMIT	1%	$64,789
CONTINGENCY	10%	$654,373
ESCALATION (Summer 2015)	5%	$359,905

TOTAL CONSTRUCTION COST		$7,558,012

FIRE STATION #1		$501,295

TOTAL DIRECT COST		$501,295
GENERAL CONDITIONS	5%	$25,065
GENERAL ADMINISTRATIVE O&P	5%	$26,318
P&P BOND & INSURANCE	1.5%	$8,290
PERMIT	1%	$5,610
CONTINGENCY	10%	$56,658
ESCALATION (Summer 2015)	5%	$31,162

TOTAL CONSTRUCTION COST		$654,397

FIRE STATION #3		$841,485

TOTAL DIRECT COST		$841,485
GENERAL CONDITIONS	5%	$42,074
GENERAL ADMINISTRATIVE O&P	5%	$44,178
P&P BOND & INSURANCE	1.5%	$13,916
PERMIT	1%	$9,417
CONTINGENCY	10%	$95,107
ESCALATION (Summer 2015)	5%	$52,309

TOTAL CONSTRUCTION COST		$1,098,486

SUMMARY

FIRE STATION #4		$702,800

TOTAL DIRECT COST		$702,800
GENERAL CONDITIONS	5%	$35,140
GENERAL ADMINISTRATIVE O&P	5%	$36,897
P&P BOND & INSURANCE	1.5%	$11,623
PERMIT	1%	$7,865
CONTINGENCY	10%	$79,432
ESCALATION (Summer 2015)	5%	$43,688

TOTAL CONSTRUCTION COST		$917,444

FIRE STATION #5		$595,774

TOTAL DIRECT COST		$595,774
GENERAL CONDITIONS	5%	$29,789
GENERAL ADMINISTRATIVE O&P	5%	$31,278
P&P BOND & INSURANCE	1.5%	$9,853
PERMIT	1%	$6,667
CONTINGENCY	10%	$67,336
ESCALATION (Summer 2015)	5%	$37,035

TOTAL CONSTRUCTION COST		$777,731

FIRE STATION #6		$410,050

TOTAL DIRECT COST		$410,050
GENERAL CONDITIONS	5%	$20,503
GENERAL ADMINISTRATIVE O&P	5%	$21,528
P&P BOND & INSURANCE	1.5%	$6,781
PERMIT	1%	$4,589
CONTINGENCY	10%	$46,345
ESCALATION (Summer 2015)	5%	$25,490

TOTAL CONSTRUCTION COST		$535,285

SAYLES AND BURNS LIBRARIES		$2,335,751

TOTAL DIRECT COST		$2,335,751
GENERAL CONDITIONS	5%	$116,788
GENERAL ADMINISTRATIVE O&P	5%	$122,627
P&P BOND & INSURANCE	1.5%	$38,627
PERMIT	1%	$26,138
CONTINGENCY	10%	$263,993
ESCALATION (Summer 2015)	5%	$145,196

TOTAL CONSTRUCTION COST		$3,049,120

SUMMARY

SENIOR CENTER/ADULT DAY CARE		$979,473

TOTAL DIRECT COST		$979,473
GENERAL CONDITIONS	5%	$48,974
GENERAL ADMINISTRATIVE O&P	5%	$51,422
P&P BOND & INSURANCE	1.5%	$16,198
PERMIT	1%	$10,961
CONTINGENCY	10%	$110,703
ESCALATION (Summer 2015)	5%	$60,886

TOTAL CONSTRUCTION COST		$1,278,616

PUBLIC WORKS CENTER/MAINTENANCE		$2,301,800

TOTAL DIRECT COST		$2,301,800
GENERAL CONDITIONS	5%	$115,090
GENERAL ADMINISTRATIVE O&P	5%	$120,845
P&P BOND & INSURANCE	1.5%	$38,066
PERMIT	1%	$25,758
CONTINGENCY	10%	$260,156
ESCALATION (Summer 2015)	5%	$143,086

TOTAL CONSTRUCTION COST		$3,004,800

POLICE ANNEX		$165,817

TOTAL DIRECT COST		$165,817
GENERAL CONDITIONS	5%	$8,291
GENERAL ADMINISTRATIVE O&P	5%	$8,705
P&P BOND & INSURANCE	1.5%	$2,742
PERMIT	1%	$1,856
CONTINGENCY	10%	$18,741
ESCALATION (Summer 2015)	5%	$10,308

TOTAL CONSTRUCTION COST		$216,460

SLATER PARK OFFICE		$56,670

TOTAL DIRECT COST		$56,670
GENERAL CONDITIONS	5%	$2,834
GENERAL ADMINISTRATIVE O&P	5%	$2,975
P&P BOND & INSURANCE	1.5%	$937
PERMIT	1%	$634
CONTINGENCY	10%	$6,405
ESCALATION (Summer 2015)	5%	$3,523

TOTAL CONSTRUCTION COST		$73,978

SUMMARY

ANIMAL SELTER		$128,440

TOTAL DIRECT COST		$128,440
GENERAL CONDITIONS	5%	$6,422
GENERAL ADMINISTRATIVE O&P	5%	$6,743
P&P BOND & INSURANCE	1.5%	$2,124
PERMIT	1%	$1,437
CONTINGENCY	10%	$14,517
ESCALATION (Summer 2015)	5%	$7,984

TOTAL CONSTRUCTION COST		$167,667

VFW GATCHELL POST		$210,000

TOTAL DIRECT COST		$210,000
GENERAL CONDITIONS	5%	$10,500
GENERAL ADMINISTRATIVE O&P	5%	$11,025
P&P BOND & INSURANCE	1.5%	$3,473
PERMIT	1%	$2,350
CONTINGENCY	10%	$23,735
ESCALATION (Summer 2015)	5%	$13,054

TOTAL CONSTRUCTION COST		$274,137

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	69,416
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	83.41
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

CITY HALL -POLICE-FIRE STATION #2

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	30,000	1%	0.43
B20 - EXTERIOR ENCLOSURE	2,675,000	46%	38.54
B30 - ROOFING	825,000	14%	11.88
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	521,236	9%	7.51
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	100,000	2%	1.44
D20 - PLUMBING	362,375	6%	5.22
D30 - HVAC	414,292	7%	5.97
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	417,803	7%	6.02
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	444,042	8%	6.40

TOTAL	5,789,747	100%	83.41

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B10 - SUPERSTRUCTURE				
B1010 FLOOR CONSTRUCTION				
B1020 ROOF CONSTRUCTION				
Repair broken and failed precast roof planks	1	LS	30,000.00	30,000

				30,000
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Repair cast stone cracks and spalls	1	LS	50,000.00	50,000
Masonry Restoration:				
Repair and restore main roof tower	1	LS	1,200,000.00	1,200,000
Masonry Restoration Building	35,000	SF	40.00	1,400,000
B2020 EXTERIOR WINDOWS				
New Insulated Glass Windows - allow	10	EA	2,500.00	25,000

				2,675,000
B30 - ROOFING				
B3010 ROOF COVERINGS				
Terra Cotta:				
Remove terra cotta tile	2,700	SF	10.00	27,000
Remove terra cotta ridge tiles	180	LF	15.00	2,700
Deck Prep and membrane	2,700	SF	9.00	24,300

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
New Terra Cotta Tile	2,700	SF	75.00	202,500
New Terra Cotta Ridge	180	LF	125.00	22,500
Membrane:				
Remove roofing and flashing	16,800	SF	2.50	42,000
New Membrane roofing and flashing	16,800	SF	30.00	504,000

				825,000

C. INTERIORS

C10 - INTERIOR CONSTRUCTION

C1010 PARTITIONS

Interior Notes:

Basement Level:				
No exit sign above stair	1	EA	750.00	750
No fire separation from garage & storage areas (5-2) from exercise area	1	LS	5,000.00	5,000
Wood trim around repl. windows ned to be repaired at various locations	1	LS	5,000.00	5,000
Closet is located under stair, a code violation. Stairways must not have closets that open direction into stairwell	1	LS	2,500.00	2,500
Door hardware at stairwell drs need to be replaced	1	LS	750.00	750
Drop down clg is old and in need of replacement	1	LS	2,500.00	2,500
Exercise rm need general cleaning & painting of all surfaces	1	LS	4,000.00	4,000
Exercise rm has various wall & clg openings that nee to be closed off	1	LS	2,000.00	2,000
Evidence of ceiling leaks at exercise rm	1	LS	2,500.00	2,500
Exterior door by garage doors need to have new hardware removal of bolt lock & upgrade exist sign	1	LS	1,500.00	1,500
Various electrical boxes missing cover plate. Wires visible	1	LS	1,000.00	1,000
First Floor Level:				
Vinyl asbestos tile (VAR) at stair landing	200	SF	15.00	3,000
Stair door being held open with wood peg. Recommend adding a magnetic door holder	1	EA	500.00	500
Stair at lower landing needs new hardware. Recommend panic hardware.	1	EA	1,400.00	1,400
Recommend updating with new Firemen Metal Lockers	10	EA	300.00	3,000
Water leaks visible at drop-down clg at call center	1	LS	1,000.00	1,000
UPS at call center needs to be enclosed within rated space	1	LS	4,000.00	4,000
Apparatus bay has numerous locations at plaster ceil where plywood has been used to cover areas where plaster has fallen. Recommend replacing entire plaster ceiling with new	4,000	SF	30.00	120,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Some wall tile missing in apparatus bay	1	LS	1,500.00	1,500
Window from office to apparatus bay needs to be rated	1	LS	1,500.00	1,500
Exterior door at apparatus bay missing exit sign	1	LS	750.00	750
Wood supports used for exhaust duct @ ceiling	1	LS	1,500.00	1,500
Concrete thresholds and main garage openings are cracked and broken	1	LS	2,500.00	2,500
Mixed-use areas have no fire separation	1	LS	10,000.00	10,000
Doors/windows from apparatus space are not fire rated. Typ.	1	LS	7,500.00	7,500
Second Floor Level:				
Stair at upper landing has a window that needs a guard at 18" AFF. Glazing should be tempered.	1	LS	1,500.00	1,500
Skylight has exposed wood framing	1	LS	2,000.00	2,000
Skylight has large opening to space between ceiling and roof.	1	LS	2,000.00	2,000
Sleeping quarters have open duct at ceiling	1	LS	5,000.00	5,000
VAT tile need to be removed	1	LS	10,000.00	10,000
Bathroom needs new ceiling and light fixtures. High ceiling is original plaster. Inspect for leaks hidden by drop down ceiling	1	LS	7,500.00	7,500
Sleeping quarters lack storage closets	10	EA	1,500.00	15,000
Plaster damaged behind cast iron heater	1	LS	2,000.00	2,000
Ceiling tile leaks visible	1	LS	2,000.00	2,000
Communal bathroom missing door at toilet partition	1	EA	750.00	750
No separate toilet and shower facilities for female fire fighters	1	LS	60,000.00	60,000
Skylights need to be replaced	1	LS	10,000.00	10,000
Plaster ceiling in office has signs of water leaks	1	LS	5,000.00	5,000
General:				
Interior Painting	69,416	GSF	2.85	197,836
New emergency electrical closets	3	EA	5,000.00	15,000

				521,236

D. SERVICES

D10 - CONVEYING

D1010 ELEVATORS & LIFTS

Replace existing elevator equipment and Cab	1	LS	100,000.00	100,000

				100,000

D20 - PLUMBING

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D2010 PLUMBING FIXTURES				
Water Closets:				
Remove existing water closet	32	EA	75.00	2,400
New Water Closet	32	EA	1,800.00	57,600
Replace fittings (tie into existing)	32	EA	350.00	11,200
Urinals:				
Remove existing urinal	5	EA	75.00	375
New Urinal	5	EA	1,200.00	6,000
Replace fittings (tie into existing)	5	EA	350.00	1,750
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	6	EA	3,000.00	18,000
Path ceiling below bathroom	6	LOC	1,500.00	9,000
New floor drain piped to adjacent	6	EA	3,000.00	18,000
Roof Drain:				
Remove existing roof drain	12	EA	175.00	2,100
Core and Patch new drain opening	12	EA	500.00	6,000
New Roof drains and piping to adjacent	24	EA	1,600.00	38,400
Patch and flash roof	24	EA	500.00	12,000
PLUMBING - CITY HALL:				
Priority 1:				
Provide new master thermostat mixing valve	1	EA	5,000.00	5,000
Priority 2:				
New 4" BF preventer @ bldg service	1	EA	8,500.00	8,500
Priority 3:				
Make-up water BFP @ RTU feed	1	LS	3,000.00	3,000
Priority 4:				
New batt op faucet and sensor	20	EA	675.00	13,500
Priority 5:				
Re-pipe and insul. HC lav	6	EA	500.00	3,000
Priority 6:				
Replace mop sink faucet	3	EA	600.00	1,800
Preventative Maintenance:				
Replace patched cast iron piping	1	LS	5,000.00	5,000
Insulate water piping where possible	1	LS	7,500.00	7,500
PLUMBING - POLICE STATION:				
Priority 1:				
Provide new master thermostat mixing valve	1	EA	5,000.00	5,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Priority 2:				
New BF preventer @ bldg sewer	1	EA	12,000.00	12,000
Rework roof drainage and provide emergency overflow drains	1	LS	30,000.00	30,000
Priority 3:				
New batt op faucet and sensor - public only	10	EA	675.00	6,750
Priority 4:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700
Priority 5:				
Replace mop sink faucet	3	EA	600.00	1,800
Preventative Maintenance:				
Insulate water piping where possible	1	LS	750.00	750
PLUMBING - FIRE STATION #2:				
Priority 1:				
Provide new master thermostat mixing valve	1	EA	5,000.00	5,000
Priority 2:				
New BF preventer @ bldg sewer	1	EA	12,000.00	12,000
Rework roof drainage and provide emergency overflow drains	1	LS	30,000.00	30,000
Priority 3:				
New batt op faucet and sensor - public only	10	EA	675.00	6,750
Priority 4:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700
Priority 5:				
Replace mop sink faucet	3	EA	600.00	1,800
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500
D2040 RAIN WATER DRAINAGE				
Replace sump pump in basement	1	LS	10,000.00	10,000
Alarm control at duplex sump	1	LS	2,500.00	2,500

				362,375

D30 - HVAC

CITY HALL:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Replace steam control valves	30	EA	1,200.00	36,000
Add office split system (1 ton)	10	EA	6,500.00	65,000
POLICE STATION:				
Upgrade Ventilation	1	LS	100,000.00	100,000
FIRE STATION #2:				
Replace dorm RTU	1	LS	35,000.00	35,000
Truck bay infrared gas heaters	1	LS	25,000.00	25,000
Replace dispatch AC unit	1	LS	15,000.00	15,000
Modify Upgrade Temp control throughout	69,146	GSF	2.00	138,292

				414,292
D50 - ELECTRICAL				
Update panel boards and emergency power separatic	69,146	GSF	1.50	103,719
Improved receptacles and add GFI at garage	69,146	GSF	0.50	34,573
Improve exterior lighting	1	LS	10,000.00	10,000
Improve as necessary interior lighting	69,146	GSF	2.00	138,292
Upgrade fire alarm	69,146	GSF	1.50	103,719
Mechanical wiring	1	LS	7,500.00	7,500
Separate Emergency from Normal power	1	LS	20,000.00	20,000

				417,803
G. BUILDING SITEWORK				
Rebuild curb inlet - SE corner lot #4	1	LS	4,000.00	4,000
Replace broken/missing curbing - lot #4 - allow	200	LF	65.00	13,000
Reconfigure ADA parking #4	4	SPC	2,900.00	11,600
Reconfigure ADA parking #1	3	SPC	2,900.00	8,700
Repave Parking Lot #1 & #2:				
2 Lyr bit	61,770	SF	3.50	216,195
Remove bit pavement	61,770	SF	0.90	55,593
Reset utility structure	10	EA	350.00	3,500
Misc. site rework	1	LS	10,000.00	10,000
Line painting	178	SPC	22.00	3,916
HC & misc. paint	1	LS	2,500.00	2,500
Modify curing at islands	1	LS	40,000.00	40,000
Rebuild accessible curb cuts	4	EA	3,000.00	12,000
Repair fire dept driveway crack	3,050	SF	0.75	2,288
Replace concrete pavement @ main entry	1,250	SF	12.00	15,000
Repair stairs @ police south entrance	1	LS	7,500.00	7,500
Replace brick sidewalk @ FD Drive	15	SF	60.00	900
Repair Leather Ave driveway cracks	5,800	SF	0.75	4,350
Leather Ave sidewalk repair	1	LS	3,000.00	3,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Add parking lot light @ lot #4 & #5	6	EA	5,000.00	30,000

				444,042

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	5,070
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	98.87
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

FIRE STATION #1

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	43,060	9%	8.49
B30 - ROOFING	35,000	7%	6.90
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	187,335	37%	36.95
C20 - STAIRS	14,500	3%	2.86
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	89,450	18%	17.64
D30 - HVAC	48,000	10%	9.47
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	81,050	16%	15.99
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	2,900	1%	0.57

TOTAL	501,295	100%	98.87

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Repair Garage entrance thresholds	1	LS	2,500.00	2,500
Windows:				
Replace exterior windows	5,070	GSF	8.00	40,560

				43,060
B30 - ROOFING				
B3010 ROOF COVERINGS				
Repair roof hatch	1	LS	2,500.00	2,500
Repair holes and seams at copper flashing	1	LS	7,500.00	7,500
Replace skylight	1	EA	15,000.00	15,000
Improve roof water collection system	1	LS	10,000.00	10,000

				35,000
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
C1010 PARTITIONS				
Mixed-use areas have no fire separation	1	LS	7,500.00	7,500
Ceiling in apparatus bay, have water stains, and a large section of plaster above newer ceiling has collapsed. This ceilings needs to be replaced in its entirety	3,000	SF	30.00	90,000
Apparatus bay concrete floor has various cracks dep	1	LS	5,000.00	5,000
Base cabinets at kitchen need to be replaced	12	LF	500.00	6,000
Doors/windows from apparatus space are not fire rated ,typ	1	LS	7,500.00	7,500
Lockers in apparatus bay need replacing with new	10	EA	450.00	4,500
Wood windows in apparatus bay need refurbishing	1	LS	5,000.00	5,000
Wood lockers are original to bldg need replacing	15	EA	750.00	11,250
Paint building Interior	5,070	GSF	3.00	15,210
Numerous gas containers not within fire proof cabinets	1	LS	2,500.00	
Exits signs are not to Code, need to be electronically lit	5	EA	750.00	3,750
All doors require handle hardware type instead of twist knob	25	EA	225.00	5,625

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Basement windows are missing and/opr sealed	1	LS	2,500.00	2,500
(1) Bedroom has a water stain in ceiling	1	LS	1,000.00	1,000
Bathroom in 2nd flr has rusty fin tube cover and stained walls	1	LS	1,500.00	1,500
Bedroom at 2nd flr has patched wall from water damage. Wall needs sanding and painting	1	LS	1,000.00	1,000
Various water stains in 2nd flr ceiling	1	LS	5,000.00	5,000
Vinyl asbestos floor tile (VAT) at 2nd floor	1,500	SF	10.00	15,000

				187,335

C20 - STAIRS

C2010 STAIR CONSTRUCTION

Replace basement stairs - wood	1	FLTS	12,000.00	12,000
Rescuer railing at second floor	1	LS	2,500.00	2,500

				14,500

D20 - PLUMBING

Water Closets:				
Remove existing fixture	3	EA	75.00	225
New Water Closet	3	EA	1,800.00	5,400
New Urinal	3	EA	1,150.00	3,450
Replace fittings (tie into existing)	3	EA	350.00	1,050
Urinals:				
Remove existing urinal	1	EA	75.00	75
New Urinal	1	EA	1,200.00	1,200
Replace fittings (tie into existing)	1	EA	350.00	350
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	2	EA	3,000.00	6,000
Path ceiling below bathroom	2	LOC	1,500.00	3,000
New floor drain piped to adjacent	2	EA	3,000.00	6,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,500.00	3,500
Priority 2:				
Replace Building Plumbing Fixtures	24	EA	2,200.00	52,800
Priority 3:				
Re-pipe and insul. HC lav		inc. w/ #2		
Priority 4:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Priority 5:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500

				89,450
D30 - HVAC				
Replace hot water baseboard	300	LF	125.00	37,500
Relocate thermostat	1	LS	500.00	500
New split ac system	1	LS	10,000.00	10,000

				48,000
D50 - ELECTRICAL				
Update panel boards and emergency power separatic	5,070	GSF	6.00	30,420
Replace wiring devices	5,070	GSF	2.50	12,675
Improve exterior lighting	1	LS	5,000.00	5,000
Improve as necessary interior lighting	5,070	GSF	4.00	20,280
Replace fire alarm	5,070	GSF	2.50	12,675

				81,050
G. BUILDING SITEWORK				
New ADA parking space	1	SPC	2,900.00	2,900

				2,900

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	5,266
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	159.80
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

FIRE STATION #3

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	72,128	9%	13.70
B30 - ROOFING	199,750	24%	37.93
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	199,375	24%	37.86
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	60,125	7%	11.42
D30 - HVAC	65,500	8%	12.44
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	89,357	11%	16.97
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	155,250	18%	29.48

TOTAL	841,485	100%	159.80

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
Replace exterior windows	5,266	GSF	8.00	42,128
Allow for potential asbestos caulking	1	LS	20,000.00	20,000
Recaulk insulated metal panels	1	LS	10,000.00	10,000

				72,128
B30 - ROOFING				
B3010 ROOF COVERINGS				
Membrane:				
Remove roofing and flashing	5,900	SF	2.50	14,750
New Membrane roofing and flashing	5,900	SF	25.00	147,500
Remove louver and patch at roof curb	1	LS	5,000.00	5,000
Rebuild masonry chimney	1	LS	25,000.00	25,000
Misc. brick repair at scuppers	1	LS	5,000.00	5,000
Add soffit screen at openings	1	LS	2,500.00	2,500

				199,750
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
C1010 PARTITIONS				
Interior Finish Notes:				
Ceiling in kitchen area has water stains	1	LS	750.00	750
Windows shades need replacement	1	LS	5,000.00	5,000
Exits signs are not to Code, need to be electronically lit	4	EA	750.00	3,000
Exterior doors requires new hardware	4	EA	2,500.00	10,000
Apparatus bay ceiling water damage, Needs full replacement.	3,000	SF	30.00	90,000
All doors require handle type hardware instead of twist know	25	EA	225.00	5,625
Urinal clearance tight to wall	1	LS	2,000.00	2,000
Toilet partitions need replacement	7	EA	1,500.00	10,500
Tile at shower compartments need replacing	1	LS	4,000.00	4,000
At shower compartment, light not working, Caulk plaster to CMU wall	1	LS	1,500.00	1,500
Lockers and VCT flooring need to be replaced with new	1	LS	15,000.00	15,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Sleeping quarters are a multi-use space. No privacy. Area includes weight area & lounge	1	LS	25,000.00	25,000
Mechanical rm exterior door needs to be replaced	1	EA	2,000.00	2,000
Asbestos insul. visible in mechanical rm	1	LS	10,000.00	10,000
Mixed-use areas have no fire separation	1	LS	7,500.00	7,500
Doors/windows from apparatus space are not fire rated ,typ	1	LS	7,500.00	7,500

				199,375

D20 - PLUMBING

Water Closets and Urinals:				
Remove existing fixture	5	EA	75.00	375
New Water Closet	4	EA	1,800.00	7,200
New Urinal	1	EA	1,150.00	1,150
Replace fittings (tie into existing)	5	EA	350.00	1,750
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	2	EA	3,000.00	6,000
Path ceiling below bathroom	2	LOC	1,500.00	3,000
New floor drain piped to adjacent	2	EA	3,000.00	6,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,500.00	3,500
Priority 2:				
Replace roof drains	6	EA	3,000.00	18,000
Priority 3:				
New batt op faucet and sensor - public only	10	EA	675.00	6,750
Priority 4:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700
Priority 5:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500

				60,125

D30 - HVAC

New Gas Service	1	LS	5,000.00	5,000
New Gas fired infared heaters at apparatus space	4	EA	6,500.00	26,000
New Condensing boiler pump and rough in	1	LS	22,000.00	22,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Replace bathroom and shower exhaust	1	LS	5,000.00	5,000
New split AC System	1	LS	7,500.00	7,500

				65,500

D50 - ELECTRICAL

Update panel boards and emergency power separatic	5,266	GSF	6.00	31,596
Convert generator to duel fuel	1	LS	10,000.00	10,000
Improved receptacles and add GFI at garage	5,266	GSF	0.50	2,633
Improve exterior lighting	1	LS	3,000.00	3,000
Replace interior lighting	5,266	GSF	5.00	26,330
Upgrade fire alarm	5,266	GSF	3.00	15,798

				89,357

G. BUILDING SITEWORK

New ADA parking space	1	SPC	2,900.00	2,900
Repave Rear Drive:				
2 Lyr bit	2,800	SF	3.50	9,800
Remove bit pavement	2,800	SF	0.90	2,520
Reset utility structure	4	EA	350.00	1,400
Replace concrete aprons	180	SF	25.00	4,500
Replace concrete sidewalk	1,200	SF	18.00	21,600
Replace front Concrete Driveway	3,100	SF	22.00	68,200
New traffic light	2	EA	22,000.00	44,000
Traffic sign	2	EA	165.00	330

				155,250

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	7,840
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	89.64
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

FIRE STATION #4

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	7,500	1%	0.96
B30 - ROOFING	206,250	29%	26.31
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	155,625	22%	19.85
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	60,125	9%	7.67
D30 - HVAC	85,500	12%	10.91
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	131,050	19%	16.72
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	56,750	8%	7.24

TOTAL	702,800	100%	89.64

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
Infill brick openings at garage	1	LS	7,500.00	7,500

				7,500
B30 - ROOFING				
Membrane:				
Remove roofing and flashing	7,500	SF	2.50	18,750
New Membrane roofing and flashing	7,500	SF	25.00	187,500

				206,250
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
C1010 PARTITIONS				
Interior Finishes Notes:				
Mixed-use areas have no fire separation	1	LS	7,500.00	7,500
Ceiling in apparatus bay is missing numerous tiles, have water stained & needs to be replaced in its entirety	3,000	SF	30.00	90,000
Doors/windows from apparatus space are not fire rated ,typ	1	LS	7,500.00	7,500
Lockers in apparatus bay need replacing with new	10	EA	450.00	4,500
Wood lockers are original to bldg need replacing	15	EA	750.00	11,250
Kitchen area has standard drop clg. Recommend replacing with typ bd ceilings or washable commercial kitchen ceiling tiles	1,000	SF	10.00	10,000
Weight room not sufficiently sizes for facility	1	LS	10,000.00	10,000
Weight rm has chin-up bar hanging from ceiling.	1	LS	750.00	750
Wiring support from ceiling should be replace with metal rods	1	LS	1,000.00	1,000
Handicap toilet does not meet ANZI A117.1 Standards	1	LOC	3,500.00	3,500
New shower installation is ongoing. Shower is fiberglass and not suitable for commercial applications.	1	LS	3,000.00	3,000
Exits signs are not to Code, need to be electronically lit	5	EA	750.00	
Shower door at (1) bathroom will need replacing	1	LOC	1,000.00	1,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Showing signs of wear and tear, rusty screws				
All doors require handle type hardware instead of twist knob	25	EA	225.00	5,625

				155,625

D20 - PLUMBING

Water Closets and Urinals:				
Remove existing fixture	5	EA	75.00	375
New Water Closet	4	EA	1,800.00	7,200
New Urinal	1	EA	1,150.00	1,150
Replace fittings (tie into existing)	5	EA	350.00	1,750
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	2	EA	3,000.00	6,000
Path ceiling below bathroom	2	LOC	1,500.00	3,000
New floor drain piped to adjacent	2	EA	3,000.00	6,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,500.00	3,500
Priority 2:				
Replace roof drains	6	EA	3,000.00	18,000
Priority 3:				
New batt op faucet and sensor - public only	10	EA	675.00	6,750
Priority 4:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700
Priority 5:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500

				60,125

D30 - HVAC

New Gas Service	1	LS	5,000.00	5,000
New Gas fired infared heaters at apparatus space	4	EA	6,500.00	26,000
New Condensing boiler pump and rough in	1	LS	22,000.00	22,000
Improve Building Ventilation	1	LS	30,000.00	30,000
Replace kitchen exhaust hood - recirculating	1	LS	2,500.00	2,500

				85,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D50 - ELECTRICAL				
Update panel boards and emergency power separatic	7,870	GSF	6.00	47,220
Convert generator to duel fuel	1	LS	10,000.00	10,000
Improved receptacles and add GFI at garage	7,870	GSF	1.00	7,870
Improve exterior lighting	1	LS	3,000.00	3,000
Replace interior lighting	7,870	GSF	5.00	39,350
Upgrade fire alarm	7,870	GSF	3.00	23,610

				131,050

G. BUILDING SITEWORK

G10 - SITE PREPARATION				
New ADA parking space	2	SPC	2,900.00	5,800
New HC Curb cut	4	LOC	2,500.00	10,000
Rebuild curb cut	1	LOC	2,000.00	2,000
Replace concrete pavement - 10%	950	SF	25.00	23,750
Seal pavement cracks	12,000	SF	0.50	6,000
Rebuild Bit. sidewalk	700	SF	6.00	4,200
New concrete accessible ramp - 9' long	1	LS	5,000.00	5,000

				56,750

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	5,106
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	116.68
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

FIRE STATION #5

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	119,196	20%	23.34
B30 - ROOFING	185,450	31%	36.32
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	68,227	11%	13.36
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	42,125	7%	8.25
D30 - HVAC	35,000	6%	6.85
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	94,696	16%	18.55
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	51,080	9%	10.00

TOTAL	595,774	100%	116.68

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Remove front planter	1	LS	5,000.00	5,000
Repair and reseal exposed glu lam framing	1	LS	15,000.00	15,000
Replace exterior windows	5,106	GSF	8.00	40,848
Infill open voids in exterior wall	1	LS	7,500.00	7,500
Cut and point brick sills	1	LS	5,000.00	5,000
Repair fired damaged soffit	1	LS	5,000.00	5,000
Replace exterior windows	5,106	GSF	8.00	40,848

				119,196
B30 - ROOFING				
Membrane:				
Remove roofing and flashing	6,380	SF	2.50	15,950
New Membrane roofing and flashing	6,380	SF	25.00	159,500
Replace garden wood canopy	1	LS	10,000.00	10,000

				185,450
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Interior Painting - 100%	5,106	GSF	4.50	22,977
Mixed-use areas have no fire separation	1	LS	7,500.00	7,500
Doors/windows from apparatus space are not fire rated ,typ	1	LS	7,500.00	7,500
Exits signs are not to Code, need to be electronically lit. Doors by the roll-up doors do not have signs at all	5	EA	750.00	3,750
All doors require handle type hardware instead of twist knob	20	EA	250.00	5,000
Asbestos pipe insulation visible in basement	1	LS	7,500.00	7,500
Glazed CMU block exterior walls damaged at base	1	LS	2,500.00	2,500
Dining area wall damaged. Needs to be repaired	1	LS	1,000.00	1,000
Weight rm & sleeping quarters share the same space	1	LS	10,000.00	10,000
Damaged plaster corner at apparatus bay	1	LS	500.00	500

				68,227

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D20 - PLUMBING				
Water Closets and Urinals:				
Remove existing fixture	5	EA	75.00	375
New Water Closet	4	EA	1,800.00	7,200
New Urinal	1	EA	1,150.00	1,150
Replace fittings (tie into existing)	5	EA	350.00	1,750
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	2	EA	3,000.00	6,000
Path ceiling below bathroom	2	LOC	1,500.00	3,000
New floor drain piped to adjacent	2	EA	3,000.00	6,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,500.00	3,500
Priority 2:				
New batt op faucet and sensor - public only	10	EA	675.00	6,750
Priority 3:				
Re-pipe and insul. HC lav	4	EA	675.00	2,700
Priority 4:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500

				42,125
D30 - HVAC				
New Gas Service	1	LS	5,000.00	5,000
New Gas fired infared heaters at apparatus space	4	EA	6,500.00	26,000
Reinsulate mech piping at boiler room	1	LS	2,000.00	2,000
New Bathroom exhaust	1	LS	2,000.00	2,000

				35,000
D50 - ELECTRICAL				
Update panel boards and emergency power separation	5,106	GSF	6.00	30,636
Convert generator to duel fuel	1	LS	10,000.00	10,000
Improved receptacles and add GFI at garage	5,106	GSF	1.00	5,106
Improve exterior lighting	1	LS	3,000.00	3,000
Replace interior lighting	5,106	GSF	6.00	30,636
Upgrade fire alarm	5,106	GSF	3.00	15,318

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
				94,696
G. BUILDING SITEWORK				
Replace concrete pavement - 10%	270	SF	25.00	6,750
Trafice signage	2	EA	165.00	330
New traffic light	2	EA	22,000.00	44,000

				51,080

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	4,775
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	85.87
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

FIRE STATION #6

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	25,950	6%	5.43
B30 - ROOFING	57,600	14%	12.06
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	57,200	14%	11.98
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	37,200	9%	7.79
D30 - HVAC	117,800	29%	24.67
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	89,400	22%	18.72
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	24,900	6%	5.21

TOTAL	410,050	100%	85.87

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Selective cut and Point Brick	1	LS	10,000.00	10,000
Caulk garage door openings	2	EA	300.00	600
Replace garage door thresholds	1	EA	150.00	150
Replace exterior stairway door	1	EA	2,000.00	2,000
Replace roof downspout	1	LOC	1,200.00	1,200
Repair rotted wood trim	1	LS	5,000.00	5,000
Repair front entry porch	1	LS	2,500.00	2,500
General building sealant	1	LS	3,000.00	3,000
Repair broken window	1	EA	500.00	500
Clean and Paint window lintels	1	LS	1,000.00	1,000

				25,950
B30 - ROOFING				
B3010 ROOF COVERINGS				
Replace asphalt shingle roofing - 100%	4,800	SF	12.00	57,600

				57,600
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Mixed-use areas have no fire separation	1	LS	3,000.00	3,000
Doors/windows from apparatus space are not fire rated ,typ	1	LS	5,000.00	5,000
Lockers in apparatus bay need replacing with new	10	EA	450.00	4,500
Provide Accessible bathroom at App rm	1	LOC	25,000.00	25,000
Patch damaged plaster	1	LS	2,500.00	2,500
New exterior door hardware	1	EA	2,000.00	2,000
Repair broken wire glass	1	LS	750.00	750
Paint stair structure	1	LS	1,200.00	1,200
Repair bathroom tile	1	LS	4,000.00	4,000
Repair plaster form water leaks	1	LS	2,500.00	2,500
Exits signs are not to Code, need to be electronically lit	3	EA	750.00	2,250
All doors require handle type hardware instead	20	EA	225.00	4,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
				57,200
D20 - PLUMBING				
Water Closets and Urinals:				
Remove existing fixture	4	EA	75.00	300
New Water Closet	3	EA	1,800.00	5,400
New Urinal	1	EA	1,150.00	1,150
Replace fittings (tie into existing)	4	EA	350.00	1,400
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	2	EA	3,000.00	6,000
Path ceiling below bathroom	2	LOC	1,500.00	3,000
New floor drain piped to adjacent	2	EA	3,000.00	6,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,500.00	3,500
Priority 2:				
New batt op faucet and sensor - public only	8	EA	675.00	5,400
Priority 3:				
Re-pipe and insul. HC lav	2	EA	675.00	1,350
Priority 4:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500

				37,200
D30 - HVAC				
New Gas Service	1	LS	5,000.00	5,000
New Gas fired infared heaters at apparatus space	4	EA	6,500.00	26,000
New Condensing boiler pump and rough in	1	LS	22,000.00	22,000
Replace hot water baseboard and piping	4,775	SF	12.00	57,300
New split AC System	1	LS	7,500.00	7,500

				117,800
D50 - ELECTRICAL				
Update panel boards and emergency power separatic	4,775	GSF	6.00	28,650
Convert generator to duel fuel	1	LS	10,000.00	10,000
Improved receptacles and add GFI at garage	4,775	GSF	1.00	4,775
Improve exterior lighting	1	LS	3,000.00	3,000
Replace interior lighting	4,775	GSF	6.00	28,650

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Upgrade fire alarm	4,775	GSF	3.00	14,325

				89,400

G. BUILDING SITEWORK

Repave Parking Lot #1 & #2:	3,000	SF	3.50	10,500
2 Lyr bit	3,000	SF	0.90	2,700
Remove bit pavement	2	EA	350.00	700
Reset utility structure	1	LS	2,000.00	2,000
Create new ADA Parking space	1	EA	2,500.00	2,500
Concrete Ramp - 8' long	1	LS	4,000.00	4,000
Misc. site rework	1	LS	2,500.00	2,500

				24,900

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	40,911
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	57.09
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

SAYLES AND BURNS LIBRARIES

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	20,000	1%	0.49
B30 - ROOFING	1,153,700	49%	28.20
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	656,165	28%	16.04
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	65,000	3%	1.59
D20 - PLUMBING	117,800	5%	2.88
D30 - HVAC	185,000	8%	4.52
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	87,286	4%	2.13
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	50,800	2%	1.24

TOTAL	2,335,751	100%	57.09

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Minor cut and point exterior	1	LS	20,000.00	20,000

				20,000
B30 - ROOFING				
B3010 ROOF COVERINGS				
Copper Roofing:				
Remove copper roofing	8,900	SF	7.50	66,750
Underlayment and waterproofing	8,900	SF	8.00	71,200
Standing seam copper roof and flashing	8,900	SF	60.00	534,000
Misc Roofing	8,900	SF	15.00	133,500
Sayles Membrane:				
Remove roofing and flashing	3,500	SF	2.50	8,750
New Membrane roofing and flashing	3,500	SF	30.00	105,000
Burns Remove Built -up roof	5,500	SF	3.00	16,500
New Membrane roofing and flashing	5,500	SF	36.00	198,000
Repair terra cotta and copper flashing	1	LS	10,000.00	10,000
Replace canopy Roofing	1	LS	10,000.00	10,000

				1,153,700
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Replace interior Floor finish	40,911	SF	10.00	409,110
Interior Painting	40,911	SF	5.00	204,555
Replace circulation desk	1	LS	40,000.00	40,000
Replace broken structural glass floor	1	LS	2,500.00	2,500

				656,165
D. SERVICES				
D10 - CONVEYING				
D1010 ELEVATORS & LIFTS				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Dover - new controller, fixture, power unit	1	LS	65,000.00	65,000

				65,000

D20 - PLUMBING

Water Closets and Urinals:				
Remove existing fixture	10	EA	75.00	750
New Water Closet	8	EA	1,800.00	14,400
New Urinal	1	EA	1,150.00	1,150
Replace fittings (tie into existing)	10	EA	350.00	3,500
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	4	EA	3,000.00	12,000
Path ceiling below bathroom	4	LOC	1,500.00	6,000
New floor drain piped to adjacent	4	EA	3,000.00	12,000
Roof Drainage:				
Add emergency over flow drains to exisitng	4	LOC	4,500.00	18,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	7,500.00	7,500
Priority 2:				
New batt op faucet and sensor	40	EA	675.00	27,000
Priority 3:				
Re-pipe and insul. HC lav	10	EA	500.00	5,000
Priority 4:				
Replace mop sink faucet	5	EA	600.00	3,000
Preventative Maintenance:				
Insulate water piping where possible	1	LS	7,500.00	7,500

				117,800

D30 - HVAC

Replace chiller condensing unit	1	LS	50,000.00	50,000
Modify ahu air intake	1	LS	20,000.00	20,000
New ac Split system at mezzanine level	1	LS	75,000.00	75,000
DDC Control upgrade:				
Provide VFD and controls to AHU	1	LS	15,000.00	15,000
Humidity sensor and control	1	LS	25,000.00	25,000

				185,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D50 - ELECTRICAL				
New electrical panel	1	LS	6,500.00	6,500
Increase general purpose outlets - ALLOW	20	EA	250.00	5,000
Mechanical wiring	1	LS	15,000.00	15,000
Circulation desk interior and ext. lighting - ALLOW	1	LS	10,000.00	10,000
Emergency bypass relay	10	EA	750.00	7,500
New Fire Alarm strobe and horn	5	EA	475.00	2,375
Minor electrical upgrades and modifications	40,911	SF	1.00	40,911

				87,286
G. BUILDING SITEWORK				
G10 - SITE PREPARATION				
Replace concrete sidewalk	1,000	SF	18.00	18,000
Repave bit. loading dock	3,000	SF	4.40	13,200
Reset granite curb at sidewalk	80	LF	45.00	3,600
Rebuild curb cut	1	EA	2,000.00	2,000
Minor drainage repair	1	LS	5,000.00	5,000
Repair brick retaining wall face	100	SF	40.00	4,000
Minor Pavement Repair	1	LS	5,000.00	5,000

				50,800

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	15,133
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	64.72
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

SENIOR CENTER/ADULT DAY CARE

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	118,426	12%	7.83
B30 - ROOFING	261,000	27%	17.25
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	120,865	12%	7.99
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	50,000	5%	3.30
D20 - PLUMBING	108,625	11%	7.18
D30 - HVAC	58,250	6%	3.85
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	38,038	4%	2.51
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	224,270	23%	14.82

TOTAL	979,473	100%	64.72

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Repair brick masonry openings - ALLOW	1	LS	20,000.00	20,000
Allow for selective Tower repair	1	LS	50,000.00	50,000
Windows:				
Replace 40% exterior windows	15,133	GSF	3.20	48,426

				118,426
B30 - ROOFING				
Remove roofing and flashing	7,800	SF	2.50	19,500
New Membrane roofing and flashing	7,800	SF	30.00	234,000
Replace gutter and downspout	1	LS	7,500.00	7,500

				261,000
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Interior Painting - 50%	15,133	GSF	2.00	30,266
Replace Flooring - 50%	15,133	GSF	4.50	68,099
Repair water stained plaster wall and ceiling	1	LS	10,000.00	10,000
Relocate exhaust air shaft at rear stair	1	LS	5,000.00	5,000
Acoustical treatment at lobby	1	LS	7,500.00	7,500

				120,865
D. SERVICES				
D10 - CONVEYING				
D1010 ELEVATORS & LIFTS				
New controller, fixture, power unit	1	LS	50,000.00	50,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL

				50,000
D20 - PLUMBING				
Water Closets and Urinals:				
Remove existing fixture	13	EA	75.00	975
New Water Closet	11	EA	1,800.00	19,800
New Urinal	2	EA	1,150.00	2,300
Replace fittings (tie into existing)	13	EA	350.00	4,550
Add floor drains at Multi-fixt bathrooms:				
Core and Reslope floor (inc. patch)	4	EA	3,000.00	12,000
Path ceiling below bathroom	4	LOC	1,500.00	6,000
New floor drain piped to adjacent	4	EA	3,000.00	12,000
Roof Drainage:				
Add emergency over flow drains to exisitng	4	LOC	4,500.00	18,000
Priority 1:				
Provide new master thermostat mixing valve	1	EA	7,500.00	7,500
Priority 2:				
New batt op faucet and sensor	20	EA	675.00	13,500
Priority 3:				
Re-pipe and insul. HC lav	8	EA	500.00	4,000
Priority 4:				
Replace mop sink faucet	5	EA	600.00	3,000
Preventative Maintenance:				
Insulate water piping where possible	1	LS	5,000.00	5,000

				108,625
D30 - HVAC				
Replace DX Roof top unit w/ elec cooling	1,200	CFM	10.00	12,000
Relocate RTU and ducts	1	LS	15,000.00	15,000
Replace baseboard heat	250	LF	125.00	31,250

				58,250
D50 - ELECTRICAL				
Update panel boards and emergency power separatic	4,775	GSF	4.00	19,100
Improved receptacles and add GFI at garage	4,775	GSF	0.50	2,388
Improve exterior lighting	1	LS	3,000.00	3,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Upgrade interior lighting	4,775	GSF	0.50	2,388
Upgrade fire alarm	4,775	GSF	1.50	7,163
Emergency call button system	1	LS	4,000.00	4,000

				38,038

G. BUILDING SITEWORK

Re-stripe ADA Parking spaces	7	EA	350.00	2,450
Relocate wheel stops	50	EA	25.00	1,250
Repave 50% Parking Lot:				
2 Lyr bit	40,000	SF	3.50	140,000
Remove bit pavement	40,000	SF	0.90	36,000
Reset utility structure	5	EA	350.00	1,750
Misc. site rework	1	LS	10,000.00	10,000
Line painting	60	SPC	22.00	1,320
HC & misc. paint	1	LS	2,500.00	2,500
Replace curbing as necessary	100	LF	40.00	4,000
Replace concrete sidewalk	1,000	SF	18.00	18,000
New ADA Curb cut	2	EA	3,500.00	7,000

				224,270

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	34,800
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	66.14
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

PUBLIC WORKS CENTER/MAINTENANCE

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	182,500	8%	5.24
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	168,750	7%	4.85
B30 - ROOFING	0	0%	0.00
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	325,500	14%	9.35
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	30,800	1%	0.89
D30 - HVAC	137,000	6%	3.94
D40 - FIRE PROTECTION	256,200	11%	7.36
D50 - ELECTRICAL	272,300	12%	7.82
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	928,750	40%	26.69

TOTAL	2,301,800	100%	66.14

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
A. SUBSTRUCTURE				
A10 - FOUNDATIONS				
Repair floor heaves and depressions - Allow	5,000	SF	35.00	175,000
Adjust slab at bldg egress for flush transition	1	LS	7,500.00	7,500

				182,500
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
B2010 EXTERIOR WALLS				
Repair exterior metal panel:				
Regrade perimeter as necessary	1	LS	25,000.00	25,000
Removal and replace rusted panels	750	LF	175.00	131,250
Repair door thresholds	1	LS	5,000.00	5,000
Repair concrete bollards	1	LS	7,500.00	7,500

				168,750
B30 - ROOFING				
B3010 ROOF COVERINGS	NO INFORMATION			

				0
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Mixed-use areas have no fire separation	1	LS	25,000.00	25,000
Repair corridor floor level and tile	1,500	SF	35.00	52,500
Repair corridor ceiling tile	1,500	SF	7.00	10,500
Replace CMU at settlement and cracking	1	LS	50,000.00	50,000
Create accessible bathrooms	1	LS	60,000.00	60,000
Replace VAT w/ new VCT	2,500	SF	15.00	37,500
Remove asbestos pipe insulation	1	LS	10,000.00	10,000
Replace building door hardware as necessary	1	LS	5,000.00	5,000
Exits signs are not to Code, need to be electronically lit	10	EA	750.00	7,500
All doors require handle hardware type instead of				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
twist knob	40	EA	225.00	9,000
Replace egress door hardware	4	EA	2,500.00	10,000
Replace interior wire glass	1	LS	7,500.00	7,500
Reconfigure second means of egress	2	LOC	5,000.00	10,000
Repalce ceiling at new mechanical system	1,000	SF	7.50	7,500
Floor safety paint lines at maintance bay	1	LS	5,000.00	5,000
Update emergency eye wash	1	EA	3,500.00	3,500
General Building Accessibility upgrade	1	LS	10,000.00	10,000
Replace selective ceilings	1	LS	5,000.00	5,000

				325,500
D20 - PLUMBING				
Priority 1:				
Provide new master thermostat mixing valve	1	EA	5,000.00	5,000
Priority 2:				
New batt op faucet and sensor	20	EA	675.00	13,500
Priority 3:				
Re-pipe and insul. HC lav	6	EA	500.00	3,000
Priority 4:				
Replace mop sink faucet	3	EA	600.00	1,800
Preventative Maintenance:				
Insulate water piping where possible	1	LS	7,500.00	7,500

				30,800
D30 - HVAC				
New Gas fired infared heaters at maintance bay	10	EA	6,500.00	65,000
New Condensing boiler pump and rough in	1	LS	22,000.00	22,000
Replace fin tube radiation	200	LF	125.00	25,000
New mech system at San. and Highway office	1	LS	25,000.00	25,000

				137,000
D40 - FIRE PROTECTION				
D4010 SPRINKLERS				
Sprinkler Service	1	LF	30,000.00	30,000
Wet and Dry sprinkler system	34,800	SF	4.50	156,600
Interior Cut and Patch	34,800	SF	2.00	69,600

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL

				256,200

D50 - ELECTRICAL

Update panel boards and emergency power separatic	34,800	GSF	3.00	104,400
New ATS for facility separation	1	LS	10,000.00	10,000
Improved receptacles and add GFI at garage	34,800	GSF	0.50	17,400
Improve exterior lighting	1	LS	10,000.00	10,000
Improve as necessary interior lighting	34,800	GSF	2.00	69,600
Upgrade fire alarm	34,800	GSF	1.25	43,500
Upgrade security system	34,800	GSF	0.50	17,400

				272,300

G. BUILDING SITEWORK

G10 - SITE PREPARATION

Repave Parking Lot:				
2 Lyr bit	175,000	SF	3.50	612,500
Remove bit pavement	175,000	SF	0.90	157,500
Reset utility structure	25	EA	350.00	8,750
Misc. site rework	1	LS	20,000.00	20,000
Line painting	1	LS	7,500.00	7,500
Upgrade site drainage system	1	LS	100,000.00	100,000
Repair broken fencing	500	LF	45.00	22,500

				928,750

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	5,104
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	32.49
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

POLICE ANNEX

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	5,000	3%	0.98
B30 - ROOFING	0	0%	0.00
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	0	0%	0.00
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	42,625	26%	8.35
D30 - HVAC	60,000	36%	11.76
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	30,192	18%	5.92
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	28,000	17%	5.49

TOTAL	165,817	100%	32.49

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B. SHELL				
B20 - EXTERIOR ENCLOSURE				
Minor Exterior Repair	1	LS	5,000.00	5,000

				5,000
D20 - PLUMBING				
Priority 1:				
Provide new master thermostat mixing valve	1	EA	3,000.00	3,000
Priority 2:				
New BF preventer @ bldg sewer	1	EA	8,500.00	8,500
Rework roof drainage and provide emergency overflow drains	1	LS	15,000.00	15,000
Priority 3:				
New batt op faucet and sensor - public only	8	EA	675.00	5,400
Priority 4:				
Re-pipe and insul. HC lav	3	EA	675.00	2,025
Priority 5:				
Replace mop sink faucet	2	EA	600.00	1,200
Preventative Maintenance:				
Insulate water piping where possible	1	LS	2,500.00	2,500
Repair cast iron piping	1	LS	5,000.00	5,000

				42,625
D30 - HVAC				
Replace first floor air handler and ductwork	1	LS	60,000.00	60,000

				60,000
D50 - ELECTRICAL				
Rewire UPS System	1	LS	1,000.00	1,000
Replace ATS	1	LS	4,500.00	4,500
Update panel boards and emergency power separatic	5,104	GSF	1.50	7,656
Improved receptacles and add GFI at garage	5,104	GSF	0.50	2,552
Improve exterior lighting	1	LS	3,000.00	3,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Improve as necessary interior lighting	5,104	GSF	1.00	5,104
Upgrade fire alarm	5,104	GSF	1.25	6,380

				30,192

G. BUILDING SITEWORK

Create ADA Parking spaces	2	EA	2,900.00	5,800
Add bollards at fuel tank	6	EA	1,200.00	7,200
Repair Armistice Blvd curbing	1	LS	7,500.00	7,500
Repair chain link fence	1	LS	2,500.00	2,500
New Concrete ramp	1	LS	5,000.00	5,000

				28,000

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	1,640
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	34.55
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

SLATER PARK OFFICE

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	0	0%	0.00
B30 - ROOFING	0	0%	0.00
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	0	0%	0.00
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	1,000	2%	0.61
D30 - HVAC	15,750	28%	9.60
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	16,620	29%	10.13
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	23,300	41%	14.21

TOTAL	56,670	100%	34.55

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D20 - PLUMBING				
Insulate domestic water piping as necessary	1	LS	1,000.00	1,000

				1,000
D30 - HVAC				
New split ac unit with four interior units	1	LS	12,000.00	12,000
Replace baseboard heat	30	LF	125.00	3,750

				15,750
D50 - ELECTRICAL				
Improve number of duplex outlets	15	EA	130.00	1,950
Replace Interior wiring	1,640	GSF	3.00	4,920
Add exit lighting	3	EA	750.00	2,250
Upgrade fire alarm system	1	LS	7,500.00	7,500

				16,620
G. BUILDING SITEWORK				
Traffic signage	2	EA	165.00	330
Create ADA Parking spaces	2	EA	2,900.00	5,800
Repair at widen road area	100	LF	150.00	15,000
Repair crack at retaining wall	1	LS	2,500.00	2,500

				23,300

PROJECT:	Pawtucket Department of Public Works	NO. OF SQ. FT.:	8,506
LOCATION:	Pawtucket, Rhode Island	COST PER SQ. FT.:	15.10
CLIENT:	Symmes Maini & McKee Assoc., Inc.		
DATE:	20-Feb-14		

ANIMAL SELTER

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT	COST PER SF
A. SUBSTRUCTURE			
A10 - FOUNDATIONS	0	0%	0.00
A20 - BASEMENT CONSTRUCTION	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE	0	0%	0.00
B20 - EXTERIOR ENCLOSURE	5,000	4%	0.59
B30 - ROOFING	0	0%	0.00
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION	10,000	8%	1.18
C20 - STAIRS	0	0%	0.00
C30 - INTERIOR FINISHES	0	0%	0.00
D. SERVICES			
D10 - CONVEYING	0	0%	0.00
D20 - PLUMBING	10,000	8%	1.18
D30 - HVAC	92,360	72%	10.86
D40 - FIRE PROTECTION	0	0%	0.00
D50 - ELECTRICAL	0	0%	0.00
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT	0	0%	0.00
E20 - FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION	0	0%	0.00
G. BUILDING SITEWORK	11,080	9%	1.30

TOTAL	128,440	100%	15.10

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
B20 - EXTERIOR ENCLOSURE				
Rework roof drainage at entry	1	LS	2,500.00	2,500
Repair soffit panel at north side	1	LS	2,500.00	2,500

				5,000
C. INTERIORS				
C10 - INTERIOR CONSTRUCTION				
Extend masonry partition to underside of structure	1	LS	10,000.00	10,000

				10,000
D20 - PLUMBING				
Reinsulate water piping	1	LS	2,500.00	2,500
Priority #1:				
Relocate piping at exterior wall	1	LS	5,000.00	5,000
Priority #2:				
Provide heat at mechanical room	1	LS	2,500.00	2,500

				10,000
D30 - HVAC				
Modify VAV System with increased control and VFD drives	1	LS	25,000.00	25,000
Air Balancing	80	HRS	92.00	7,360
Replace heat recovery wheels	2	EA	7,500.00	15,000
Repair radiant floor heat - ALLOW	1	LS	30,000.00	30,000
Upgrade cooling as needed	1	LS	15,000.00	15,000

				92,360
G. BUILDING SITEWORK				
G10 - SITE PREPARATION				
Restripe Parking Lot	1	LS	2,500.00	2,500
Repair site bollards	1	LS	5,000.00	5,000
Regrade accessible parking space	1	LS	2,500.00	2,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Add HC parking sign	2	EA	165.00	330
Concrete wheel stop	10	EA	75.00	750

				11,080

PROJECT: Pawtucket Department of Public Works
LOCATION: Pawtucket, Rhode Island
CLIENT: Symmes Maini & McKee Assoc., Inc.
DATE: 20-Feb-14

VFW GATCHELL POST

No.: 13100

SUMMARY	TOTAL	PERCENT OF PROJECT
A. SUBSTRUCTURE		
A10 - FOUNDATIONS	0	0%
A20 - BASEMENT CONSTRUCTION	0	0%
B. SHELL		
B10 - SUPERSTRUCTURE	2,500	1%
B20 - EXTERIOR ENCLOSURE	0	0%
B30 - ROOFING	151,600	72%
C. INTERIORS		
C10 - INTERIOR CONSTRUCTION	11,500	5%
C20 - STAIRS	0	0%
C30 - INTERIOR FINISHES	0	0%
D. SERVICES		
D10 - CONVEYING	0	0%
D20 - PLUMBING	0	0%
D30 - HVAC	8,000	4%
D40 - FIRE PROTECTION	0	0%
D50 - ELECTRICAL	36,400	17%
E. EQUIPMENT & FURNISHINGS		
E10 - EQUIPMENT	0	0%
E20 - FURNISHINGS	0	0%
F. SPECIAL CONSTRUCTION & DEMOLITION		
F10 - SPECIAL CONSTRUCTION	0	0%
F20 - SELECTIVE BUILDING DEMOLITION	0	0%
G. BUILDING SITEWORK	0	0%

TOTAL	210,000	100%

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL

B. SHELL

B10 - SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Sister framing repair at plumbing renovation	1	LS	2,500.00	2,500

				2,500

B30 - ROOFING

B3010 ROOF COVERINGS

Main Building:				
Remove slate roofing	3,100	SF	7.50	23,250
Repair sheathing as necessary	3,100	SF	1.00	3,100
Ice and water shield	3,100	SF	3.00	9,300
Copper flashing	1	LS	20,000.00	20,000
New Slate Shingle	3,100	SF	25.00	77,500
Gutter and Downspout	1	LS	10,000.00	10,000
Garage and Connecting Low Roof:				
Remove flat roof membrane	200	SF	1.00	200
Remove asphalt shingle roof	650	SF	1.00	650
New Membrane roof at connector	200	SF	12.00	2,400
New Asphalt shingle at garage	650	SF	8.00	5,200

				151,600

C. INTERIORS

C10 - INTERIOR CONSTRUCTION

Repair water damaged interior	1	LS	10,000.00	10,000
Upgrade entery door hardware for egress	1	LS	1,500.00	1,500

				11,500

D30 - HVAC

Repair HW piping as necessary	1	LS	5,000.00	5,000
Replace leaking control valves	1	LS	3,000.00	3,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL

				8,000

D50 - ELECTRICAL

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Replace main electric service	1	LS	10,000.00	10,000
Increase classroom repectacles - allow	20	EA	225.00	4,500
Replace/Add illuminated exit signs	8	EA	550.00	4,400
Add Photocell and time clock to exterior lighting	1	LS	5,000.00	5,000
Repair building paging system	1	LS	7,500.00	7,500
Misc. Electrical repair	1	LS	5,000.00	5,000

				36,400

SMMA SYMMES MAINI & MCKEE ASSOCIATES

ARCHITECTURE
ENGINEERING
PLANNING
INTERIORS

MEMORANDUM

To: Andrew Silvia
From: Edward R. Frenette
Project: Facility Assessment
Re: Draft Document Review
Distribution: MF AS, LH

Date: 2/7/2014
Project No.: 13072.00

Municipal Building Name	Location	Original Renovation	Type	Floors	Square Feet
City Hall includes: Police Station & Fire Station 1	137 Roosevelt Ave	1934/2006	Masonry	4	69,416
Fire Station # 2	394 West Ave	1901	Masonry	3	5,070
Fire Station # 3	2 Columbus Ave	1957	Masonry	1	5,266
Fire Station # 4	397 Cottage St	1974	Masonry	1	7,870
Fire Station # 5	301 Smithfield Ave	1963	Masonry	1	5,106
Fire Station # 6	385 Newport Ave	1948	Masonry	3	4,775
Deborah Cook Sayles Library	13 Summer St	1899-02 /1962-67	Masonry		25,005
Gerald S. Burns Library Annex	13 Summer St	1896-99 /1980-81	Masonry		15,906
Senior Center (Original Fire Station)	420 Main St	1896/1980	Masonry	4	15,133
New Horizons Day Care	Adjacent to 420 Main St	1920/1989	Masonry	2	5,085
Public Works Center	250 Armistice Blvd	1967	Metal	1	34,800
Police Annex / Substation	270 Armistice Blvd	1986	Masonry	2	5,104
Slater Park Office	825 Armistice Blvd	1874	Wood	3	2,297
Animal Shelter	449 Newport Ave	2008	Masonry	1	8,506
Totals					**209,339**

City Decisions (Repair or Replace)	Area	Repair Construction Cost	Repair Project Cost	Replacement Construction Cost (New or Acquisition + Fit-Up)	Replacement Project Cost (New or Acquisition + Fit-Up)	Repair Versus Replace Cost	Repair Versus Replace Cost
City Hall	69,416	7,558,012	9,069,614	31,931,360	38,317,632	29,248,018	**422%**
Fire Station # 2	5,070	654,397	785,276	2,332,200	2,798,640	2,013,364	**356%**
Fire Station # 3	5,266	1,098,486	1,318,183	2,422,360	2,906,832	1,588,649	**221%**
Fire Station # 4	7,870	917,444	1,100,933	3,620,200	4,344,240	3,243,307	**395%**
Fire Station # 5	5,106	777,731	933,277	2,348,760	2,818,512	1,885,235	**302%**
Fire Station # 6	4,775	535,285	642,342	2,196,500	2,635,800	1,993,458	**410%**
Deborah Cook Sayles Library	25,005	3,049,120	3,658,944	18,409,950	22,091,940	18,432,996	**604%**
Gerald S. Burns Library Annex	15,906						
Senior Center (Original Fire Station)	15,133	1,278,616	1,534,339	7,783,930	9,340,716	7,806,377	**609%**
New Horizons Day Care	5,085						
Public Works Center	34,800	3,004,800	3,605,760	10,788,000	12,945,600	9,339,840	**359%**
Police Annex / Substation	5,104	216,460	259,752	2,526,480	3,031,776	2,772,024	**1167%**
Slater Park Office	2,297	73,978	88,774	803,950	964,740	875,966	**1087%**
Animal Shelter	8,506	167,667	201,200	3,402,400	4,082,880	3,881,680	**2029%**
Totals	209,339	19,331,996	23,198,395	89,841,321	107,809,585	84,611,190	**465%**

City Decisions (Repair or Replace + Space)	Area	Repair Construction Cost	Repair Project Cost	Replacement Construction Cost (New or Acquisition + Fit-Up)	Replacement Project Cost (New or Acquisition + Fit-Up)	Repair Versus Replace Cost	Repair Versus Replace Cost
City Hall	89,416	7,558,012	9,069,614	41,131,360	49,357,632	40,288,018	**544%**
Fire Station # 2	5,070	654,397	785,276	2,332,200	2,798,640	2,013,364	**356%**
Fire Station # 3	5,266	1,098,486	1,318,183	2,422,360	2,906,832	1,588,649	**221%**
Fire Station # 4	7,870	917,444	1,100,933	3,620,200	4,344,240	3,243,307	**395%**
Fire Station # 5	5,106	777,731	933,277	2,348,760	2,818,512	1,885,235	**302%**
Fire Station # 6	4,775	535,285	642,342	2,196,500	2,635,800	1,993,458	**410%**
Deborah Cook Sayles Library	25,005	3,049,120	3,658,944	18,409,950	22,091,940	18,432,996	**604%**
Gerald S. Burns Library Annex	15,906						
Senior Center (Original Fire Station)	15,133	1,278,616	1,534,339	7,783,930	9,340,716	7,806,377	**609%**
New Horizons Day Care	5,085						
Public Works Center	34,800	3,004,800	3,605,760	10,788,000	12,945,600	9,339,840	**359%**
Police Annex / Substation							**0%**
Slater Park Office	2,297	73,978	88,774	803,950	964,740	875,966	**1087%**
Animal Shelter	8,506	167,667	201,200	3,402,400	4,082,880	3,881,680	**2029%**
Totals	224,235	19,115,536	22,938,643	96,234,188	115,481,025	92,542,382	**503%**

DPW Decisions (Immediate H&S Repairs)	Area	Repair Construction Cost	Repair Project Cost		At 5%, CH @ 30%	At 10%, CH @ 30%	At 15%, CH @ 30%
City Hall	69,416	7,558,012	9,069,614		**2,720,884**	**2,720,884**	**2,720,884**
Fire Station # 2	5,070	654,397	785,276		39,264	78,528	117,791
Fire Station # 3	5,266	1,098,486	1,318,183		65,909	131,818	197,727
Fire Station # 4	7,870	917,444	1,100,933		55,047	110,093	165,140
Fire Station # 5	5,106	777,731	933,277		46,664	93,328	139,992
Fire Station # 6	4,775	535,285	642,342		32,117	64,234	96,351
Deborah Cook Sayles Library	25,005	3,049,120	3,658,944		182,947	365,894	548,842
Gerald S. Burns Library Annex	15,906						
Senior Center (Original Fire Station)	15,133	1,278,616	1,534,339		76,717	153,434	230,151
New Horizons Day Care	5,085						
Public Works Center	34,800	3,004,800	3,605,760		180,288	360,576	540,864
Police Annex / Substation	5,104	216,460	259,752		12,988	25,975	38,963
Slater Park Office	2,297	73,978	88,774		4,439	8,877	13,316
Animal Shelter	8,506	167,667	201,200		10,060	20,120	30,180
Totals	209,339	19,331,996	23,198,395		**1,159,920**	**2,319,840**	**3,479,759**

Ongoing Decisions (Note: This calculation is based on the assumption that, to keep facilities like new, "you buy a building" every 40 to 60 years (say 50) in either repair and replacement cost or a new acquisition. Each year the "net present building value" of the buildings goes up by the factor of inflation. See also the Executive Summary.)	Area	**2014** Replacement Project Cost (New or Acquisition + Fit-Up)		Yearly Capital Repair and Replacement Reserve Allocation for 2014 at .5% Net Present Building Value	Yearly Capital Repair and Replacement Reserve Allocation at for 2014 at 1% Net Present Building Value	Yearly Capital Repair and Replacement Reserve Allocation for 2014 at 1.5% Net Present Building Value	Yearly Capital Repair and Replacement Reserve Allocation for 2014 at 2% Net Present Building Value
City Hall	69,416	31,931,360		159,657	319,314	478,970	638,627
Fire Station # 2	5,070	2,332,200		11,661	23,322	34,983	46,644
Fire Station # 3	5,266	2,422,360		12,112	24,224	36,335	48,447
Fire Station # 4	7,870	3,620,200		18,101	36,202	54,303	72,404
Fire Station # 5	5,106	2,348,760		11,744	23,488	35,231	46,975
Fire Station # 6	4,775	2,196,500		10,983	21,965	32,948	43,930
Deborah Cook Sayles Library	25,005	11,252,250		56,261	112,523	168,784	225,045
Gerald S. Burns Library Annex	15,906						
Senior Center (Original Fire Station)	15,133	5,826,205		29,131	58,262	87,393	116,524
New Horizons Day Care	5,085						
Public Works Center	34,800	10,788,000		53,940	107,880	161,820	215,760
Police Annex / Substation	5,104	2,526,480		12,632	25,265	37,897	50,530
Slater Park Office	2,297	803,950		4,020	8,040	12,059	16,079
Animal Shelter	8,506	3,402,400		17,012	34,024	51,036	68,048
Totals	209,339	89,841,321		**449,207**	**898,413**	**1,347,620**	**1,796,826**