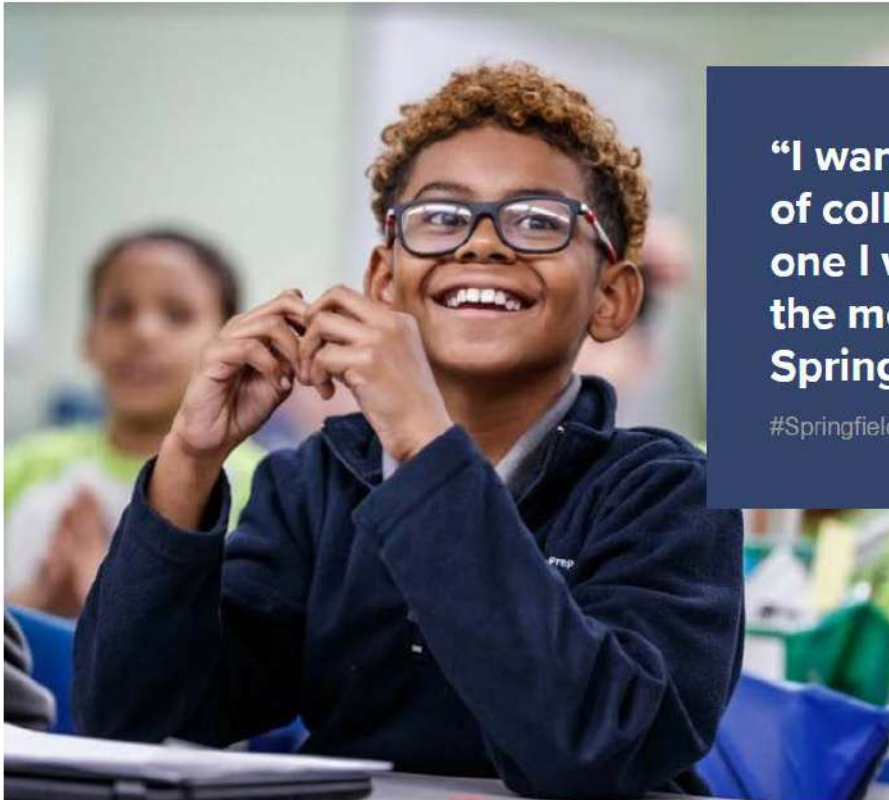


Springfield Prep Charter School

Feasibility Study

2071 Roosevelt Ave, Springfield MA



“I want to go to a lot of colleges, but the one I want to go to the most is Springfield College.”

#SpringfieldPrepFamily

November 29, 2019

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Feasibility Study

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PROJECT OVERVIEW

Springfield Preparatory Charter School

Springfield Preparatory Charter School (“SPCS”) is a high performing charter school currently located in Longmeadow, MA. SPCS serves 270 students in grades K-4 and is chartered to serve 486 students in grades K-8. The School will add one grade each year until the 2022-23 school year, when it reaches full capacity.

Springfield Preparatory Charter School opened at 370 Pine Street in Springfield in 2015 and served 108 students in kindergarten and first grade during its first year. Its charter will be voted on for renewal in February of 2020; the School will apply for renewal during the 2019-20 school year. The current charter authorizes 486 students from Springfield to attend the school.

The School’s mission is “to be an inclusive K-8 public charter school that prepares all students for success in high school, college, and life through a focus on rigorous academics and character development.” The School is driven by the belief that all children deserve a world-class education and that they can and will achieve when provided with high expectations, rigorous curriculum, and a joyful school culture. It leverages innovative teaching strategies, a 2-teacher per classroom model, a high-expectation school culture, and a data-driven instructional model to help traditionally underachieving student populations succeed academically.

For its initial three years of operation, Springfield Prep leased space from another Commonwealth Charter School, Veritas Prep, at 370 Pine Street in Springfield. Having outgrown that space SPCS relocated to a former parochial school, the former Heritage Academy (the “Heritage Campus”) at 594 Converse Street in Longmeadow for the 2018-19 school year. Springfield Prep has a lease at the Heritage Campus for 2019-20 school year. Total facility size is 24,000 square feet.

Project Summary

On October 15, 2019, SPCS executed a purchase and sale agreement for 2071 Roosevelt Avenue in Springfield, MA. The property is a flat, four acre site with a 43,515 NSF single story office building, located within a business park environment.

The size and configuration of the building are suitable for the school program needs, with the addition of a new gym building. There is more than sufficient land and access for parking, pick-up and drop off, and outdoor recreation space. The building was originally

constructed in 1970 and has been renovated to suit changing tenancies numerous times since then. Property zoning allows school use and contemplated new construction and site improvements. Change of use and/or new construction may require city of Springfield Site Plan Review and approval.



Existing Conditions

The property consists of a flat, 4.3 acres site with a 43,515 rentable or net sf, single story building office building located in a business park environment. The building was constructed in 1970 and has been renovated for multiple tenancies over the years. A complete description of the property can be found in the attached *EBI Consulting Property Condition* Report provided as part of acquisition due diligence.



Due diligence completed to date includes:

- An environmental Phase I has been completed by EBI and indicates no known environmental conditions requiring remediation. A Phase II was not recommended.
- Complete building condition report was performed by EBI, which indicates no critical flaws. The roof, although sound, is at the end of its useful life and will be replaced. The rooftop air handling units are of varying ages and will likely be partially replaced. The structure is sound, although built to minimum standards and will probably require some code related upgrades.
- A building materials survey by Smith and Wessel to assess presence of asbestos and other hazardous materials.
- Building code and structural evaluation by architect and structural engineer indicate the potential need to upgrade the structural elements in order to meet new snow load requirements and seismic codes.

Program

Jones Whitsett Architects were selected to provide the design feasibility study. The intent of the design and construction is to complete all renovations to accommodate the school at full enrollment. In addition to classrooms and support spaces, the project will include the addition of a 4635 sf gym in a pre-engineered building. The complete program, floor plans and site plans are attached in the feasibility study by JWA.

Schedule

The following table illustrates the anticipated schedule from building acquisition through occupancy by the school in the summer of 2021. Other than the tenanted space, the balance of the building is unoccupied so demolition and site work will be able to begin immediately upon receipt of demolition and building permits.

Property Acquisition	January 28, 2020
Architect Selection through the DSB	Early February 2020
Schematic Design Complete	Late March 2020
Construction Manager Hired	May 2020
Design Development Complete	June 2020
Site Plan Approval by City of Springfield	June 2020
Construction Drawings Complete	Late August 2020
Early Construction: selective demo and asbestos abatement	September/October 2020
Construction Bidding Complete and Building Permit Received	October 2020
Close Financing and Mobilize Construction	November 2020
Substantial Completion	July 2021
School Relocation and Occupancy	August 2021

BUDGET

Hard cost construction only is estimated at \$10,500,000. This number does not include, permitting, design fees, furniture, fixtures and equipment and technology. These items will be funded outside of the general contract. The project will be funded by a combination of equity and debt. A preliminary cost estimate by PM&C is attached.

Project Management

The Owner's Project Manager (OPM) was selected via public process. STV/DPM was the selected firm to manage the project through completion.

ARCHITECTURAL NARRATIVE & OUTLINE OF PROPOSED WORK

Building and Site – Outline (Feasibility Phase)

General Information & Narrative

Springfield Preparatory Charter School is currently a K-5 charter school in the process of expanding to K-8 by 2023. Based upon the program requirements of the user, the building located at 2071 Roosevelt Avenue appears to meet the long term programmatic needs of the school. The preferred solution is to renovate the existing 44,330 GSF (43,515 NSF) building to serve the academic and administrative needs of the school while installing a new 4,635 GSF pre-engineered, insulated metal building on new concrete slab to provide a gymnasium and assembly space to the new school.

Site improvements include: reconfiguration of the existing walkways and entry points to provide a more substantial entry plaza on both sides of the building. The new main entry will be oriented to the east with secondary entry/arrival/departure to the west (Roosevelt) side of the building. This organization maximizes queuing for both parents (assumed 35+ cars at one time) and buses (estimated 7 buses at a time).

Existing exterior walls are in good shape and will be recaulked at expansion joints and repaired at the few locations where grout/joint repair is needed. All existing exterior store front walls will be removed and replaced with fixed glazing and new entries. Existing fixed windows will be recaulked and remain. The current proposal does not include addition of new windows in proposed classroom locations, but this should be reviewed and included as an add alternate in the next phase of design. While the existing building code does not require windows, the IBC and best practices for educational facilities do suggest that this be a priority.

The existing roof supports several working air handling units and several obsolete air handling units. The work will include removal of all obsolete equipment, removal of the existing single ply membrane roof, installation of new R-30 tapered polyiso insulation, new metal flashing detail at perimeter and curbing and reinstallation of any existing skylights.

The possibility for new windows and additional insulation at the roof will trigger the need to reinforce the existing roof to meet current structural code requirements as noted in the structural report. Existing steel roof joists will be reinforced laterally and moment connections established at columns. Additional lateral bracing will be established in the corridor walls of the cafeteria. (See structural report for more details)

The interior of the existing building's partition walls ceilings and loose floor finishes will be gutted and removed with the exception of bathroom walls piping and finishes. New partition walls and new electrical wiring will be constructed as shown in the included floor plans. All classrooms will be

outfitted for installation of short throw interactive video projectors, one 8 foot white board, one 4 foot white board and one 4 foot tack board.

All existing acoustic ceiling tile will be removed to enable the structural system upgrade, installation of sprinklers, demolition and installation of new duct work and installation of new LED classroom lighting within a 2x4 acoustic grid pattern. At the cafeteria the acoustic ceiling will not be reinstalled. Instead, duct work and systems will be left exposed and painted in place with acoustic baffles hung to reduce reverberation while maintaining higher ceilings.

Classrooms will be located at the perimeter walls with a central core area dedicated to two cafeteria spaces connected by an existing bathroom core, a new warming kitchen and simple servery accessible to both cafeterias.

Kindergarten and 1st Grades will be located to the west side of the building where new play areas and outdoor classrooms near to the building will support protected play. The secondary entrance on the west side will be supervised by three administrative offices. 2nd to 6th Grades will wrap around to the east side of the building where the new main entrance is located. This entry will be supervised by a reception area, conference room and principal's office. The middle school classrooms will be oriented to the south end of the school and a required third exit will be available in this area. In this phase of the project it is assumed that only 7th grade classrooms are needed. Should the school extend to 8th grade in this configuration, the art and music rooms can be used as 8th grade classrooms. Eventually the school will be able to expand into the currently leased area where 8th grade classrooms and a dedicated middle school science room can be provided.

Support spaces, support staff and break out spaces will be clustered on the interior of the building at either end of the cafeteria to support classrooms. An existing electrical room is serviced by double doors at the southeast end of the building. A new fire protection room and utility closet will be added to this area to support new building systems.

Existing bathrooms will remain and be upgraded with new water efficient fixtures. Four new unisex restrooms and one (2) fixture kindergarten bathroom will be added to main building. Two, 2-fixture bathrooms will be added to new construction adjacent to the gymnasium.

The cost estimate should provide for three deduct alternate scenerios.

General Information:

Area:	Total Existing Building 44,330 GSF
	Area of Renovation 39,100 SF
	Area Under Lease 5,230 SF
	Proposed Gym Addition 4,635 SF

Floors:	1
---------	---

Construction Type:	Existing Construction Type IIB to be maintained.
Occupancy Type:	Change of occupancy from B- Business to E – Educational with accessory A-Assembly & S-Storage
Demolition:	
Abatement:	Costs for abatement provided by Smith and Wessel.
Roof:	Existing single ply membrane roofing with substrate and insulation to be removed and replaced. The existing concrete deck to remain. New R-30 insulation at roof to be installed and tapered to roof drains. Remove all obsolete equipment and repair openings.
Doors:	Retain existing functional doors at egress locations shown in plan. Remove doors shown on demo plan.
Exterior Walls:	Minor masonry repair. Remove existing storefronts systems and replace with fixed wall and window areas.
Interior Walls:	Demolish and remove all existing GWB partitions other than bathroom wall locations. Remove all existing glazed interior wall systems.
Floors:	Remove all existing carpet. Retain existing ceramic tile in good condition. Retain all existing vinyl composite tile in good condition.
Restrooms:	Retain all existing working plumbing fixtures. Evaluate heights in Design Development Phase to meet age range requirements.
Casework:	Remove all existing casework. See mechanical/ electrical report for existing electrical panels to remain.
New Construction:	
Floors:	New slab and footing walls to support new pre-engineered gym.
Roof:	(New) New R-30 continuous polyiso insulation, substrate and fully adhered EPDM or PVC roofing.
Windows:	High performance, insulated aluminum frames with dual pane glass.
Doors:	Interior: Solid core, wood veneer with single viewing light. Exterior: Aluminum at entrances; Insulated hollow metal at Mechanical and rear gym door.

	(2) 20 linear feet acoustic folding walls between music and cafeteria.
Kitchen:	New warming kitchen layout, plumbing and finishes
Insulation:	Exterior Walls: Existing to remain Roof: Upgrades to R-30 continuous Slab: Existing to remain, New R-10 slab at Gym Interior Walls: 3" Acoustic Batt, Fiberglass.
Finishes:	
Floors:	Entry: New Porcelain Tile Classrooms: New VCT Hallways: New VCT Gym/ Community Space: New wood gym flooring Kitchen: Quarry Tile Cafeteria: New VCT Administration: New Carpet Tile Toilet Rooms: Ceramic Tile 30% repair, 70% new
Interior Walls:	(New) High impact gypsum board with steel studs (2+1) at nonbearing walls. Ceramic Tile in New Restrooms. FRP in Kitchen.
Ceilings:	(New) New Suspended Acoustic Ceilings. New suspended, washable ACT in new Restrooms. New acoustic baffle ceiling in gym and cafeteria. 5% gyp ceiling at entry areas.
Gymnasium:	Pre-engineered metal building meeting current MA Energy Code.
Additional Notes/ Fixtures & Equipment:	
Typical Classroom:	Install conduit for wallmounted projector. 1-8' white board, 1-4' white board, 1 4' tack board per classroom, new pulldown shades (NIC)
Science Classroom:	No floor drain 12 lf of casework, seating or counter
Multipurpose/Gym:	Wall pads 2 Basketball Hoops
Art:	12 lf of casework
Data:	Assume two Cat6 per classroom
Wifi:	Include Wifi throughout building.

PA: Corridor locations only

Lighting: LED

SITE SOLUTION

Demolition: Remove existing concrete walkway. Removal of 3 catch basins and 300 lf of drainage pipe.

New Construction:

Bituminous Paving: Intent is to reuse and resurface existing pavements where feasible. New pavement areas to include 28 new parking spaces along the east property line.

Concrete Walks: As shown in Conceptual Site Layout

Outdoor Spaces: Soft Play Area: Landscaped berms. Enclosed by fencing.

Playground: Play Structure, Swingset. Enclosed by fencing.

Tot Lot: Small play equipment.

Outdoor Learning area: Raised garden beds

Lighting: New parking lot lighting.

Utilities: Electrical: Site lighting and walkways.

Drainage: Reuse majority of existing system.

Sewer / Water: Assume new sewer/water tie-ins for new building.

Gas: To new building.

Additional Notes/ Fixtures & Equipment:

Future Items: Shall not be included in initial cost estimate.

EXISTING



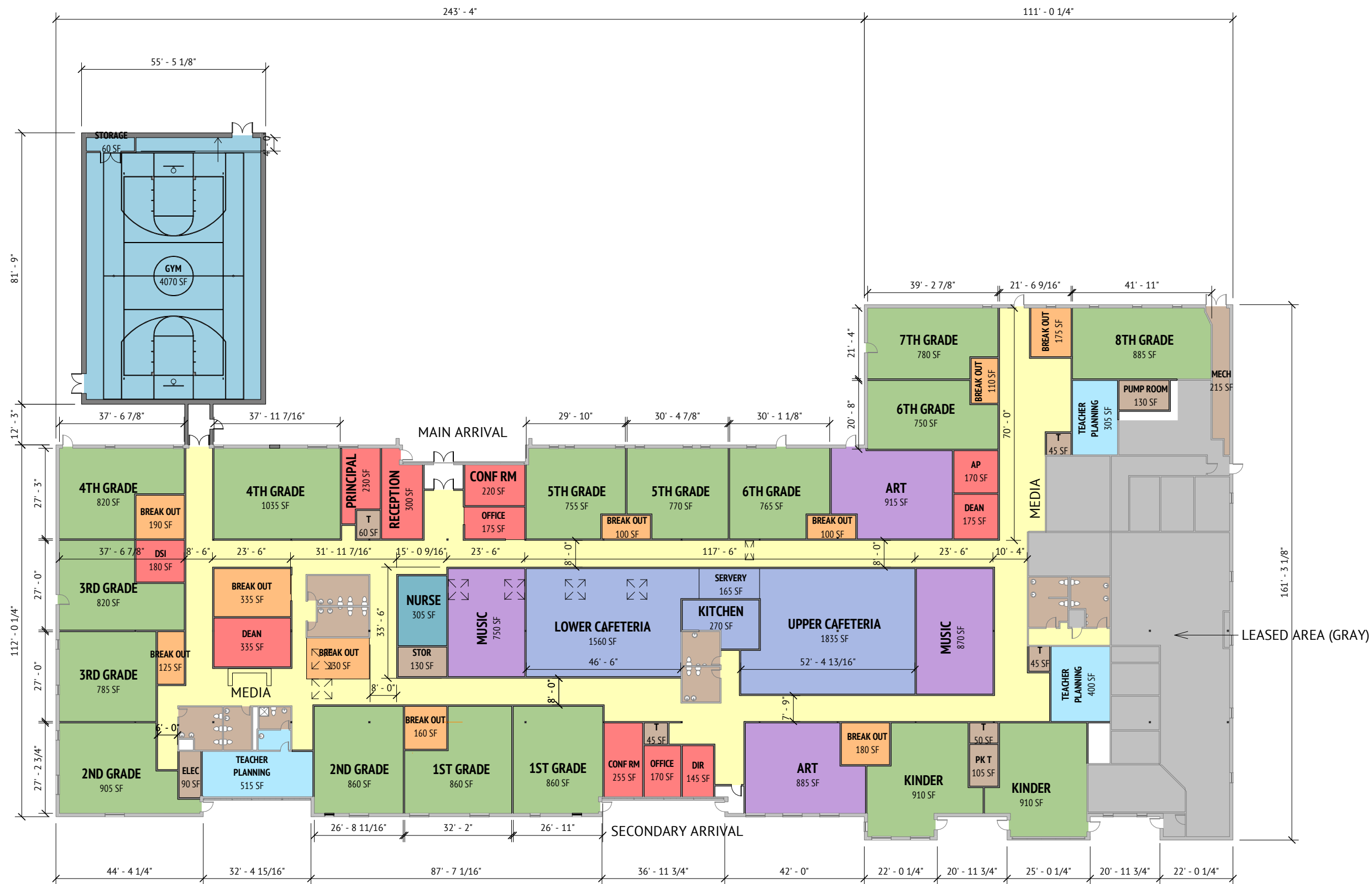
PROPOSED



*TOTAL PARKING - 136 SPACES (W/ OPT. PLAY FIELD & FUTURE PARKING - 127 SPACES)

CONCEPTUAL SITE LAYOUT





12 WOMENS/ GIRL FIXTURES
 9 MENS/ BOY FIXTURES
 1 KINDER UNISEX FIXTURES
 5 ADULT, UNISEX BATHROOMS

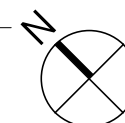
SQUARE FOOTAGE	
Name	Area

RENOVATION	39100 SF
LEASED	5230 SF
GYM	4635 SF
TOTAL AREA	48965 GSF

PROPOSED PLAN

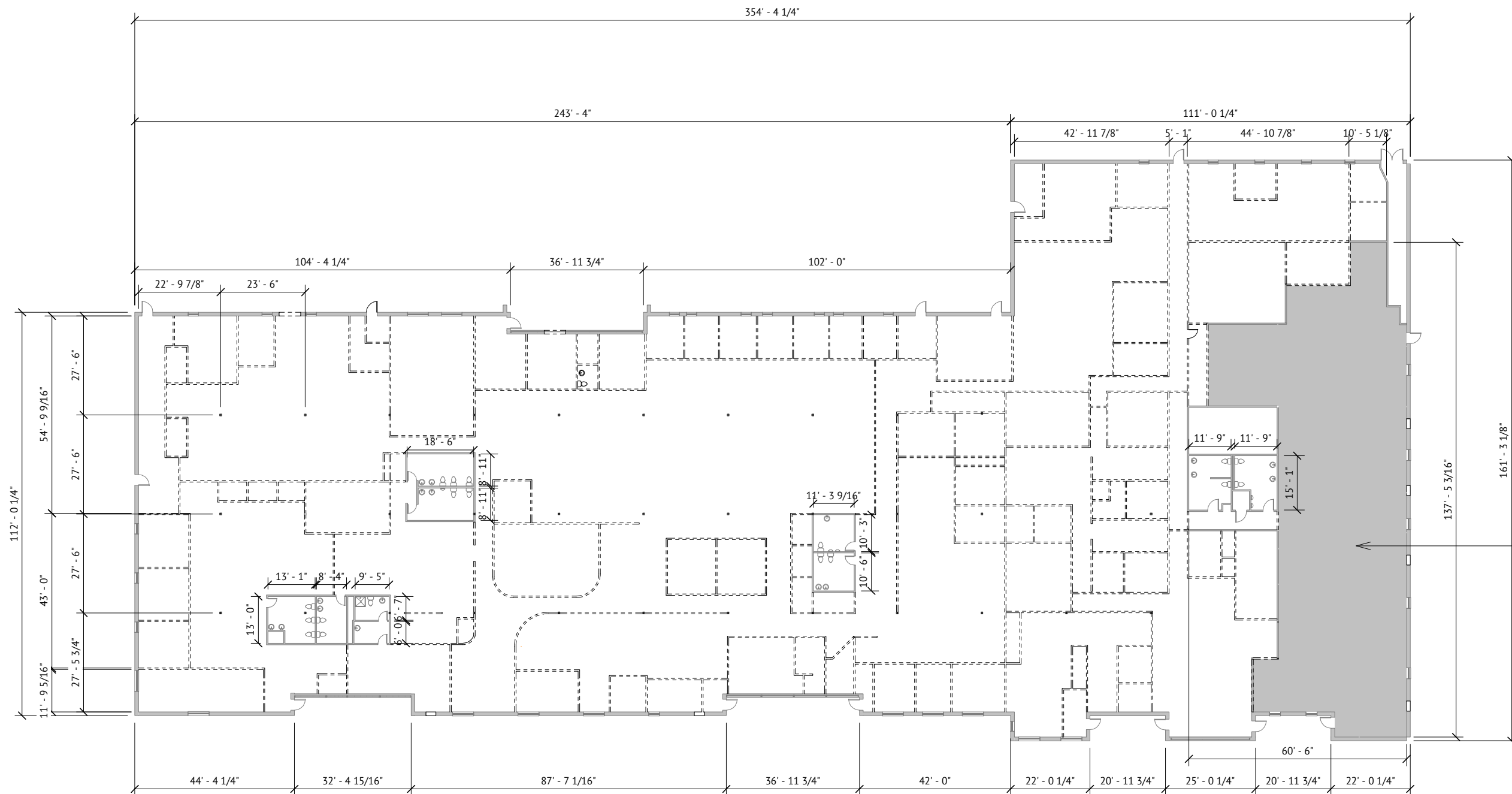
SPRINGFIELD PREP

PROJECT: 1805
 DATE: 11/26/19



SCALE: 1/32" = 1'-0"

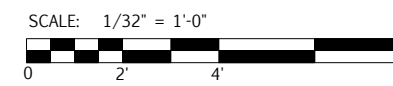
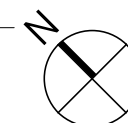




LEASED AREA (GRAY)
PHASE TWO

SQUARE FOOTAGE	
Name	Area

RENOVATION	39100 SF
LEASED	5230 SF
GYM	4635 SF
TOTAL AREA	48965 GSF



PROPOSED PROGRAM

Springfield Prep is currently operating as a K thru 5th Grade school, temporarily housed in a former religious day school in Longmeadow, MA, outside of the City of Springfield. The longterm program goals for the school are to serve a student population of 486 students in grades K thru 8th Grade by 2023. The preliminary design net square footage needs established by Springfield Prep for the school at maximum enrollment by 2023 are 46,608gsf or 95.9sf per student.

2071 Roosevelt Avenue has a rentable or net square footage space of 43,515gsf and a total gross square footage of 44,330gsf. Springfield Prep is exploring purchasing the building in its entirety and renovating 39,100sf immediately while adding 4,635 for a gym/assembly space. An existing and renewable sublease of 5,230 will remain in place. When this lease expires, Springfield Prep will be able to absorb the additional square footage achieving a total facility size of 48,965sf.

The reclaimed leased square footage and will be used to create two additional core classrooms, additional science classroom, breakout space and additional administrative office space.

Program Area

Renovation Area	39,100 SF
Addition	4,635 SF
Operational Gross Square Footage	43,735 SF
Leased Area <i>(Unavailable for use by Springfield Prep)</i>	5,230 SF
Total Building Gross Square Footage	48,965 GSF

MSBA Room Type	Name	Number	Area	Unit	Subtotal	Unit
Core Academic Spaces	1ST GRADE	146	860	SF		
Core Academic Spaces	1ST GRADE	147	860	SF		
Core Academic Spaces	2ND GRADE	149	860	SF		
Core Academic Spaces	2ND GRADE	159	905	SF		
Core Academic Spaces	3RD GRADE	158	785	SF		
Core Academic Spaces	3RD GRADE	163	820	SF		
Core Academic Spaces	4TH GRADE	164	1035	SF		

Core Academic Spaces	4TH GRADE	169	820	SF
Core Academic Spaces	5TH GRADE	103	755	SF
Core Academic Spaces	5TH GRADE	107	770	SF
Core Academic Spaces	6TH GRADE	109	765	SF
Core Academic Spaces	6TH GRADE	119	750	SF
Core Academic Spaces	7TH GRADE	120	885	SF
Core Academic Spaces	7TH GRADE	123	780	SF
Core Academic Spaces	KINDER	134	910	SF
Core Academic Spaces	KINDER	136	910	SF
				13,470 SF
Art & Music	ART	113	915	SF
Art & Music	ART	138	885	SF
Art & Music	MUSIC	104	750	SF
Art & Music	MUSIC	110	870	SF
				3420 SF
Special Education	BREAK OUT	105	100	SF
Special Education	BREAK OUT	111	100	SF
Special Education	BREAK OUT	121	110	SF
Special Education	BREAK OUT	122	175	SF
Special Education	BREAK OUT	137	180	SF
Special Education	BREAK OUT	148	160	SF
Special Education	BREAK OUT	152	230	SF
Special Education	BREAK OUT	161	125	SF
Special Education	BREAK OUT	162	335	SF
Special Education	BREAK OUT	167	190	SF
				1705 SF
Medical	NURSE	102	305	SF
				305 SF
Teacher Planning	PLANNING	118	305	SF
Teacher Planning	PLANNING	128	400	SF
Teacher Planning	PLANNING	151	515	SF
				1220 SF
Administration & Guidance	PRINCIPAL	166	230	SF
Administration & Guidance	RECEPTION	100	300	SF
Administration & Guidance	AP	117	170	SF

Administration & Guidance	CONF RM	101B	220	SF
Administration & Guidance	CONF RM	145	255	SF
Administration & Guidance	DEAN	115	175	SF
Administration & Guidance	DEAN	160	335	SF
Administration & Guidance	DIR	139	145	SF
Administration & Guidance	DSI	165	180	SF
Administration & Guidance	OFFICE	101A	175	SF
Administration & Guidance	OFFICE	141	170	SF
				2355 SF
Health & Physical Education	GYM	173	3905	SF
Health & Physical Education	STORAGE	173B	60	SF
				3965 SF
Dining & Food Service	WARMING KITCHEN	144	270	SF
Dining & Food Service	LOWER CAFETERIA	106	1560	SF
Dining & Food Service	SERVERY	144A	165	SF
Dining & Food Service	UPPER CAFETERIA	108	1835	SF
				3830 SF
Restrooms/Custodiam	OTHER		1725	SF
NET PROGRAM TOTAL			31,995	NSF
GROSS SQUARE FOOTAGE TOTAL			43,735	GSF
Net to Gross Ratio			1.36	

PHASE 2 Final Build Out (Long Term Planning)

Core Academic Spaces	8TH GRADE	127	765	SF
Core Academic Spaces	8TH GRADE	131	810	SF
				1575 SF
Special Education	8TH BREAK OUT/ TECH	124	500	SF
Special Education	BREAK OUT	129	100	SF
				600 SF

Art & Music	PREP	133B	80	SF	
Art & Music	SCIENCE	133	1150	SF	
					1230 SF
Administration & Guidance	OFFICE	112	155	SF	
Administration & Guidance	OFFICE	114	155	SF	
Administration & Guidance	STORAGE	128B	90	SF	
					400 SF
Other	ELEC	125	135		
					745 SF
NET ADDITIONAL PROGRAM TOTAL(Phase 2)					5,230 NSF
NET PROGRAM TOTAL(Phase 1)					31,995 NSF
NET PROGRAM TOTAL ALL					37,225 NSF
GROSS SQUARE FOOTAGE TOTAL					48,965 GSF
Net to Gross Ratio					1.3

ARCHITECTURAL ASSESSMENT – 2071 ROOSEVELT AVENUE, SPRINGFIELD, MA

Assessment for Springfield Prep Charter School

Location: 2071 Roosevelt Avenue
Original Building: 1970
Gross Square Footage: 44,330 GSF
Lot size: 4.31 acres
Floors: 1
Construction Type: IIB
Protection: Non-Sprinklered
Occupancy Type: I - Industrial



EXISTING

Floor: Based upon preliminary assessment, the buildings are constructed of steel columns, steel girders and 14-16" deep steel joists on concrete slab

Structure: Lightweight concrete on steel decking supported by 14-16" steel joists 4' on center spacing, supported by steel columns and beams.

This simply constructed industrial office building sits on a 4.3 acre site bordered to the west by Roosevelt Avenue and to the south by Memorial Avenue. Surrounded by neighboring industrial properties including the Big Y headquarters and Smith and Wesson, the site is fenced with a single curb cut off of Memorial. Designed to allow easy reconfiguration, the building has multiple exits on all sides and a reasonable number of slot windows, storefront and skylights providing moderate levels of daylight.



Brick veneer exterior with no parapet at roof.



Typical interior cubicles within existing 24' column grid.



Site: The generous site provides ample parking for existing business and proposed educational use. Paving is in fair condition. An existing outbuilding supports winter site maintenance equipment. Perimeter metal fencing is in good condition. Curbing and walkways are in mixed condition and are not in compliance with ADA needs at all locations. Most would be reconfigured for new use.

Single curb cut could be increased to two to enable better site circulation. Existing transformer sits at east edge of site. Plantings are minimal, decorative species. Site lighting is minimal and would need enhancement. A swale to the east of the site provides storm water catch basin for the site and looks to be adequately sized.

Roof: Single ply TPO membrane is in fair condition with evidence of ponding. Reported by owner to be 25 years old it is at the end of life expectancy.



Typical interior construction.



Roof is low sloping with no parapet.

Windows: Windows are a double pane insulated unit slot windows. While spread throughout the exterior, windows do not provide adequate daylight to meet classroom needs under new construction expectations but daylighting could be expanded. Aluminum storefront areas on south and north facades are in poor shape and should be replaced as a part of re-use plan. Existing skylights are in reasonable condition and provide daylight to center of building. Exterior doors are mix of aluminum, full light single doors and painted, steel doors. Doors are generally in fair condition. Recommend installing new for

better thermal performance and eliminating unneeded doors in favor of fixed windows.

Interior Walls: Walls are gypsum wall board with mix of finishes including wall paper and ceramic tile and glazed wall systems. Most interior partitions would be removed to accommodate new programming.



Typical carpet and hollow metal doorway



Typical interior glazed wall



Tiled



Acoustic tile ceiling and perimeter windows.

Floors: Flooring in the building consists of carpet, vinyl tile and ceramic tile. Good condition.

Ceilings: 2x2 acoustic ceilings at 9' ceiling height. Fair Condition.



Limited electrical room serves all mechanical needs.



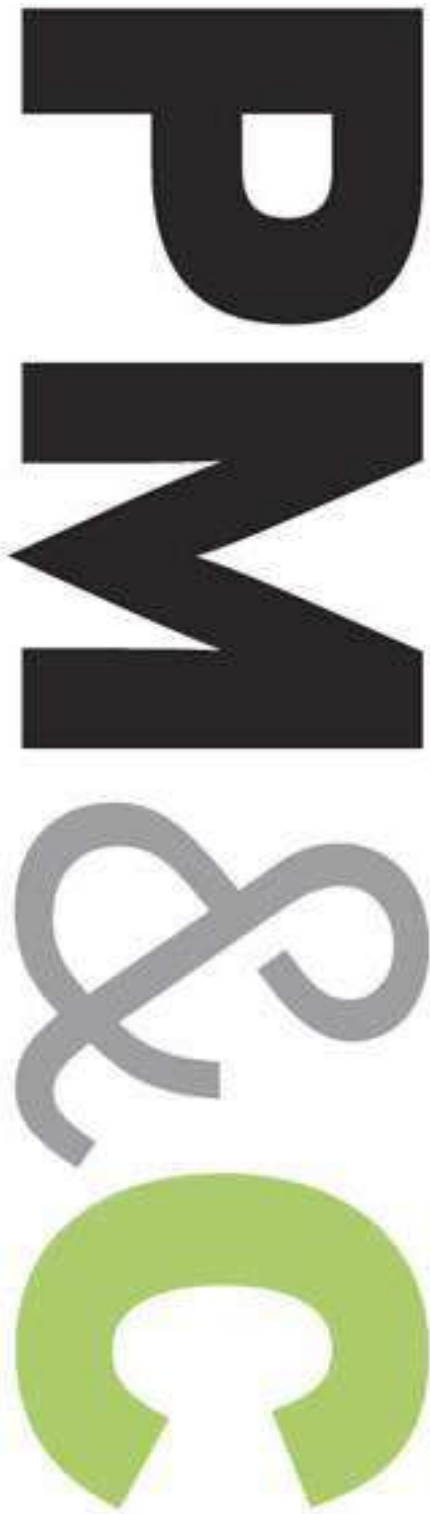
Typical bathroom finishes.

Utilities/HVAC:	Natural Gas service fuels gas-fired air handling units that are located on the roof top. Ages of AHUs vary. See detailed EBI report for more information. Assume continuation of existing HVAC systems for heating and cooling. Property is on City water service and Eversource electrical service. 400 amp service panel provides for sufficient service to existing business use.
Plumbing:	Existing restroom fixtures are in good condition and located in several locations throughout building. Finishes vary. Bathroom walls and fixtures should be preserved and re-used in new plan.
Life Safety:	While lacking in sprinklers, the building does have hardwired smoke detectors, horn/light annunciators, exit signs and fire extinguishers.
Building Code Compliance:	See report provided by Jones Whitsett Architects.
Structural Evaluation:	See narrative from Engineering Design Associates
Electrical Evaluation:	See report by EBI Consulting
Plumbing & Mechanical :	See report by EBI Consulting

Conceptual Estimate

Springfield Prep Public Charter School Renovation & New Construction Project

Springfield, MA



PM&C LLC
20 Downer Ave, Suite 5
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

Jones Whitsett Architects

November 26, 2019



Springfield Prep Public Charter School
Renovation & New Construction Project
Springfield, MA

26-Nov-19

Conceptual Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
RENOVATION				
	Jul-20			
RENOVATIONS TO EXISTING BUILDING		39,100	\$143.23	\$5,600,218
PRE-FABRICATED GYM & CONNECTOR		4,635	\$230.72	\$1,069,404
REMOVE HAZARDOUS MATERIALS, BUDGET BY SWA 11.18.19				\$152,055
SITEWORK				\$917,731
SUB-TOTAL		43,735	\$176.96	\$7,739,408
PHASING & OCCUPANY CONTINGENCY	0.0%			NIC
ESCALATION TO START DATE, July 2020 (3.5% per Annum)	2.9%			\$224,443
DESIGN AND PRICING CONTINGENCY	15%			\$1,194,578
SUB-TOTAL		43,735	\$209.41	\$9,158,429
GENERAL CONDITIONS	10	months	\$90,000	\$900,000
BONDS	1.00%			\$91,584
INSURANCE	1.75%			\$177,625
PERMIT				Waived
OVERHEAD + PROFIT	2.75%			\$284,010
TOTAL OF ALL CONSTRUCTION		43,735	\$242.64	\$10,611,648



Springfield Prep Public Charter School
Renovation & New Construction Project
Springfield, MA

26-Nov-19

Conceptual Estimate

This Conceptual cost estimate was produced from drawings, narratives and other documentation prepared by Jones Whitsett Architects and their design team dated November 13, 2019. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractor's profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149 of the Massachusetts General Laws to pre-qualified general contractors, and pre-qualified sub-contractors, open specifications for materials and manufacturers. If a CM at risk C149a procurement is used costs will increase from the costs presented in this report.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency
- Contaminated soils removal



Springfield Prep Public Charter School
Renovation & New Construction Project

Springfield, MA

Conceptual Estimate

CONSTRUCTION COST SUMMARY											
BUILDING SYSTEM			Renovation			Prefabricated Gym			Sitework		
			SUB-TOTAL	TOTAL	\$/SF	SUB-TOTAL	TOTAL	\$/SF	SUB-TOTAL	TOTAL	\$/SF
RENOVATION & NEW CONSTRUCTION			GFA	39,100		GFA	4,635		GFA	125,309	
A10	FOUNDATIONS			\$3,750			\$175,730				
	A1010	Standard Foundations	\$0		\$0.00	\$110,590		\$23.86			
	A1020	Special Foundations	\$0		\$0.00	\$0		\$0.00			
	A1030	Lowest Floor	\$3,750		\$0.10	\$65,140		\$14.05			
A20	BASEMENT CONSTRUCTION			\$0			\$0				
	A2010	Basement Excavation	\$0		\$0.00	\$0		\$0.00			
	A2020	Basement Walls	\$0		\$0.00	\$0		\$0.00			
B10	SUPERSTRUCTURE			\$156,000			\$5,000				
	B1010	Upper Floor	\$0		\$0.00	\$0		\$0.00			
	B1020	Roof Construction	\$156,000		\$3.99	\$5,000		\$1.08			
B20	EXTERIOR CLOSURE			\$166,750			\$16,808				
	B2010	Exterior Walls	\$0		\$0.00	\$16,808		\$3.63			
	B2020	Windows	\$150,150		\$3.84	\$0		\$0.00			
	B2030	Exterior Doors	\$16,600		\$0.42	\$0		\$0.00			
B30	ROOFING			\$564,670			\$0				
	B3010	Roof Coverings	\$562,170		\$14.38	\$0		\$0.00			
	B3020	Roof Openings	\$2,500		\$0.06	\$0		\$0.00			
C10	INTERIOR CONSTRUCTION			\$954,355			\$2,200				
	C1010	Partitions	\$530,030		\$13.56	\$0		\$0.00			
	C1020	Interior Doors	\$176,640		\$4.52	\$0		\$0.00			
	C1030	Specialties/Millwork	\$247,685		\$6.33	\$2,200		\$0.47			
C20	STAIRCASES			\$0			\$0				
	C2010	Stair Construction	\$0		\$0.00	\$0		\$0.00			
	C2020	Stair Finishes	\$0		\$0.00	\$0		\$0.00			
C30	INTERIOR FINISHES			\$725,690			\$67,500				
	C3010	Wall Finishes	\$117,300		\$3.00	\$0		\$0.00			
	C3020	Floor Finishes	\$361,011		\$9	\$67,500		\$14.56			
	C3030	Ceiling Finishes	\$247,379		\$6.33	\$0		\$0.00			
D10	CONVEYING SYSTEMS			\$0			\$0				
	D1010	Elevator	\$0		\$0.00	\$0		\$0.00			
D20	PLUMBING			\$276,315			\$71,611				



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CONSTRUCTION COST SUMMARY									
BUILDING SYSTEM		Renovation			Prefabricated Gym			Sitework	
		SUB-TOTAL	TOTAL	\$/SF	SUB-TOTAL	TOTAL	\$/SF	SUB-TOTAL	TOTAL
RENOVATION & NEW CONSTRUCTION			GFA 39,100			GFA 4,635			GFA 125,309
	D20 Plumbing	\$276,315		\$7.07		\$71,611	\$15.45		
D30	HVAC		\$1,059,610			\$162,920	\$35.15		
	D30 HVAC	\$1,059,610		\$27.10		\$162,920			
D40	FIRE PROTECTION		\$210,348			\$24,334	\$5.25		
	D40 Fire Protection	\$210,348		\$5.38		\$24,334			
D50	ELECTRICAL		\$1,178,450			\$138,301	\$29.84		
	D5040 Electrical Systems	\$1,178,450		\$30.14		\$138,301			
E10	EQUIPMENT		\$15,000			\$0	\$0.00		
	E10 Equipment	\$15,000		\$0.38		\$0			
E20	FURNISHINGS		\$56,250			\$0	\$0.00		
	E2010 Fixed Furnishings	\$56,250		\$1.44		\$0			
F10	SPECIAL CONSTRUCTION		\$0			\$405,000	\$87.38		
	F1010 Special Construction	\$0		\$0.00		\$405,000			
F20	SELECTIVE BUILDING DEMOLITION		\$233,030			\$0	\$0.00		
	F2010 Selective Demolition	\$233,030		\$5.96		\$0			
G	SITework								\$917,731
	G10 Site Preparation & Demolition							\$109,746	\$0.88
	G20 Site Improvements							\$603,656	\$4.82
	G30 Civil Mechanical Utilities							\$159,329	\$1.27
	G40 Electrical Utilities							\$45,000	\$0.36
TOTAL DIRECT COST (Trade Costs)			\$5,600,218	\$143.23		\$1,069,404	\$230.72		\$917,731



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Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

GROSS FLOOR AREA CALCULATION

Classrooms	13,410
Breakout	1,735
Office / Teacher Planning	3,502
Service	440
Toilet Room, existing	1,223
Toilet Room, new	375
Storage	137
Nurse	311
Arts / Music /Science	3,468
Cafeteria	3,393
Kitchen / Servery	427
Corridor	7,717
Gym Connector	
Gym	
Stage	
Vestibule	
Balance	2,962

TOTAL GROSS FLOOR AREA (GFA) 39,100 sf

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

No work in this section
SUBTOTAL

-

A1020 SPECIAL FOUNDATIONS

No work in this section
SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

Cut and patch existing slab for new plumbing	375	sf	10.00	3,750	
SUBTOTAL					3,750

TOTAL - FOUNDATIONS \$3,750

B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Structural upgrades - assumed not required				NIC	
SUBTOTAL					-

B1020 ROOF CONSTRUCTION

Repairs to existing roof - assumed not req'd	44,130	sf	10.00	NIC	
Structural roof upgrades, allowance	1	ls	150,000.00	150,000	
Reinforcing for snow loading	1	ls	20,000.00	NIC	
Dunnage	1	tns	6,000.00	6,000	
SUBTOTAL					156,000

TOTAL - SUPERSTRUCTURE \$156,000



Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Repairs to masonry wall surrounding new windows	12	loc	1,200.00	NIC	
Masonry - no work to existing				NIC	
Roof equipment screen				NIC	
SUBTOTAL					-

B2020 WINDOWS/CURTAINWALL
Exterior Wall Area - Glazed

1,640 sf

061000 ROUGH CARPENTRY

Wood blocking at openings				ETR	
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070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Backer rod & double sealant	965	lf	10.00	9,650	
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WINDOWS

Windows, metal 3'-0"W	360	sf	105.00	NIC	
Storefront, metal	1,280	sf	100.00	128,000	
Selective repairs to windows	1	ls	5,000.00	5,000	
Lifts; allow	1	ls	7,500.00	7,500	
SUBTOTAL					150,150

B2030 EXTERIOR DOORS

Glazed entrance doors including frame and hardware; double door	2	pr	8,000.00	16,000	
Glazed entrance doors including frame and hardware; single door		ea	4,000.00	ETR	
Insulated hollow metal doors including frame and hardware; double door		ea	2,000.00	ETR	
Backer rod & double sealant	40	lf	10.00	400	
Wood blocking at openings	40	lf	5.00	200	
SUBTOTAL					16,600

TOTAL - EXTERIOR CLOSURE \$166,750

B30 ROOFING

B3010 ROOF COVERINGS

Add insulation and roof membrane over existing roofing	44,130	sf	12.00	529,560	
Roof edge/fascia	1,087	lf	30.00	32,610	
SUBTOTAL					562,170

B3020 ROOF OPENINGS

Roof hatch	1	loc	2,500.00	2,500	
SUBTOTAL					2,500

TOTAL - ROOFING \$564,670



Springfield Prep Public Charter School
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GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Wall X - 3.5" MF, NR GWB, 1L-ES w/ ac. ins.	12,924	sf	13.50	174,474	
Wall X - 3.5" MF, NR GWB, 1L-ES	16,308	sf	12.00	195,696	
Wall X - 3.5" MF, 1HR GWB, 2L-ES	420	sf	20.50	8,610	
Wall X - 3.5" MF, NR MR/GWB, 1L-ES w/ ac. ins.	2,220	sf	13.50	29,970	
Wall X - 3.5" MF, 1HR GWB - Shaft, 1L-OS	228	sf	10.00	2,280	
Wall X - 3.5" MF, 2HR GWB, 2L-ES	1,200	sf	20.50	24,600	
Patch/repair existing plaster walls	39,100	nsf	2.00	78,200	
Interior Storefront, metal framed 10'H @ Main Arrival	110	sf	90.00	9,900	
Interior Storefront, metal framed 10'H @ Gym Entry	70	sf	90.00	6,300	
SUBTOTAL					530,030

C1020 INTERIOR DOORS

Door, Frame, Hardware & Install					
Door 3070 INT-FRP	3	leaf	2,000.00	6,000	
Door 3070 INT-STL	2	leaf	1,600.00	3,200	
Door 6070 INT-ALU	2	leaf	3,500.00	7,000	
Door 3070 INT-HM	69	leaf	1,800.00	124,200	
Allow sidelite @ Classrooms	336	sf	80.00	26,880	
Paint doors, frames and hardware	78	ea	120.00	9,360	
SUBTOTAL					176,640

C1030 SPECIALTIES / MILLWORK

055000 MISCELLANEOUS METALS

Miscellaneous metals throughout building	39,100	sf	1.00	39,100	
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061000 ROUGH CARPENTRY

Rough blocking	39,100	sf	0.50	19,550	
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064020 INTERIOR ARCHITECTURAL WOODWORK

Window sill				ETR	
Millwork @ Media, corridor	20	lf	400.00	NIC	
Millwork budget allowance as req'd throughout	39,100	gsf	1.70	NIC	

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Miscellaneous sealants throughout building	39,100	sf	1.50	58,650	
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101400 SIGNAGE

Code compliant signage	39,100	sf	0.25	9,775	
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101100 VISUAL DISPLAY SURFACES

Marker boards, 12' per classroom	1,280	sf	22.00	28,160	
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102110 TOILET COMPARTMENTS

ADA	8	ea	2,000.00	16,000	
Standard	24	ea	1,600.00	38,400	



Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RENOVATIONS TO EXISTING BUILDING							
154	Urinal screen	4	ea	650.00	2,600		
155							
156	102800 TOILET ACCESSORIES						
157	Gang bathroom	8	rms	2,350.00	18,800		
158	Single bathroom	8	rms	1,250.00	10,000		
159	Janitors Closet Accessories	2	rms	300.00	600		
160							
161	104100 AED CABINETS						
162	AED cabinets ; allow	1	ls	1,500.00	1,500		
163							
164	104400 FIRE PROTECTION SPECIALTIES						
165	Fire extinguisher cabinets	13	ea	350.00	4,550		
166							
167	105000 LOCKERS						
168	Lockers/Cubbies				NIC		
169	SUBTOTAL					247,685	
170							
171	TOTAL - INTERIOR CONSTRUCTION						\$954,355
172							
173							
174	C20 STAIRCASES						
175							
176	C2010 STAIR CONSTRUCTION						
177	No work in this section				ETR		
178	SUBTOTAL					-	
179							
180	C2020 STAIR FINISHES						
181	No work in this section				ETR		
182	SUBTOTAL					-	
183							
184	TOTAL - STAIRCASES						
185							
186							
187	C30 INTERIOR FINISHES						
188							
189	C3010 WALL FINISHES						
190	Wall finishes, paint at Improved Areas only	39,100	gsf	3.00	117,300		
191	Ceramic tile in new and renovated bathrooms, assume 7' high	4,277	sf	25.00	NIC		
192	SUBTOTAL					117,300	
193							
194	C3020 FLOOR FINISHES						
195	VCT	31,690	sf	5.00	158,450		
196	Rubber flooring at multipurpose	3,468	sf	12.00	41,616		
197	Carpet tile	3,502	sf	5.00	17,510		
198	Quarry tile	580	sf	26.00	NIC		
199	Ceramic tile, new restrooms	375	sf	24.00	NIC		
200	Ceramic tile replacement - existing restrooms	1,223	sf	28.00	NIC		
201	Sealed concrete @ service areas	440	sf	10.00	4,400		
202	Resilient base	7,245	lf	3.00	21,735		
203	Quarry tile base	95	lf	25.00	NIC		
204	Ceramic tile base	659	lf	22.00	NIC		



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Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RENOVATIONS TO EXISTING BUILDING							
205	Floor prep	39,100	sf	3.00	117,300		
206	SUBTOTAL					361,011	
207							
208	C3030 CEILING FINISHES						
209	ACT	36,925	sf	6.00	221,550		
210	New GWB plaster ceilings, painted	952	sf	13.00	12,376		
211	Paint existing GWB ceilings, patch	1,223	sf	11.00	13,453		
212	SUBTOTAL					247,379	
213							
214	TOTAL - INTERIOR FINISHES						\$725,690
215							
216							
217	D10 CONVEYING SYSTEMS						
218							
219	D1010 ELEVATOR						
220	No work in this section						
221	SUBTOTAL					-	
222							
223	TOTAL - CONVEYING SYSTEMS						
224							
225							
226	D20 PLUMBING						
227							
228	D20 PLUMBING, GENERALLY						
229	Demolition						
230	Demolition (Main area); cut and cap only	44,330	sf	0.50	22,165		
231	Equipment						
232	Equipment (Main area)	39,100	sf	0.75	29,325		
233	Plumbing Fixtures						
234	Fixtures (Main area) 10 fix women/girls, 7 fix men's/boys, 16 unisex lav, 6 unisex WC	39,100	sf	1.25	48,875		
235	Piping						
236	Domestic water pipe (Main area)	39,100	sf	1.50	58,650		
237	Sanitary waste pipe (Main area)	39,100	sf	1.25	48,875		
238	Natural gas pipe (Main area)	39,100	sf	0.50	19,550		
239	Storm water pipe (Main area)	39,100	sf	0.25	9,775		
240	Miscellaneous						
241	Miscellaneous (Main area)	39,100	sf	1.00	39,100		
242	SUBTOTAL					276,315	
243							
244	TOTAL - PLUMBING						\$276,315
245							
246							
247	D30 HVAC						
248							
249	D30 HVAC, GENERALLY						
250	Demolition						
251	Demolition (Main area); cut and cap only	39,100	sf	0.50	19,550		
252	Equipment						
253	Equipment (Main area), heating & cooling, etc...	39,100	sf	0.50	19,550		
254	Air Distribution						
255	Air distribution (Main area) , RTU & AHU, etc..	39,100	sf	6.00	234,600		



Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

256	<u>Sheetmetal and accessories</u>						
257	Sheetmetal & accessories (Main area)	39,100	sf	15.00	586,500		
258	<u>Piping</u>						
259	Hot water pipe (Main area)	39,100	sf	2.00	78,200		
260	Condensate drain pipe (Main area)	39,100	sf	0.10	3,910		
261	<u>Automatic Temperature Controls</u>						
262	ATC (Main area)	39,100	sf	1.00	39,100		
263	<u>Balancing</u>						
264	Balancing (Main area)	39,100	sf	0.50	19,550		
265	<u>Miscellaneous</u>						
266	Miscellaneous (Main area)	39,100	sf	1.50	58,650		
267	SUBTOTAL					1,059,610	

269	TOTAL - HVAC						\$1,059,610
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D40 FIRE PROTECTION

274	D40 FIRE PROTECTION, GENERALLY						
275	Wet sprinkler system (Main area)	38,245	sf	5.50	210,348		
276	SUBTOTAL					210,348	

278	TOTAL - FIRE PROTECTION						\$210,348
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D50 ELECTRICAL

283	D5010 SERVICE & DISTRIBUTION						
284	<u>Normal Power</u>						
285	Gear and distribution, allow if new services are required	39,100	sf	4.50	175,950		
286	<u>Emergency Power</u>						
287	Gear and distribution, allow if new services are required	39,100	sf	3.50	136,850		
288	<u>Equipment wiring feed and connection</u>						
	Equipment wiring feed and connection	39,100	sf	2.00	78,200		
290	SUBTOTAL					391,000	

292	D5020 LIGHTING & POWER						
293	LED lighting	39,100	sf	4.50	175,950		
294	<u>Lighting controls</u>						
295	Automated lighting controls system (local only)	39,100	sf	0.75	29,325		
296	<u>Branch devices</u>						
297	Branch devices	39,100	sf	0.50	19,550		
298	<u>Lighting and branch circuitry</u>						
299	Branch circuitry	39,100	sf	5.50	215,050		
300	SUBTOTAL					439,875	

302	D5030 COMMUNICATION & SECURITY SYSTEMS						
303	<u>Fire Alarm</u>						
304	New FA system	39,100	sf	2.00	78,200		
305	Bi-Directional Amplifications system	39,100	sf	0.50	NIC		



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Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

306	<u>Telephone/Data/CATV</u>						
307	Equipment				By Others		
308	Fit-Out Closets, devices and cabling	39,100	sf	2.50	97,750		
309	Rough-in	39,100	sf	1.00	39,100		
310	<u>Clock/PA System</u>						
311	Clock/PA System	39,100	sf	0.75	29,325		
312	Classroom speech reinforcement	39,100	sf	1.00	NIC		
313	<u>AV</u>						
314	AV equipment provided by others				By Others		
315	Rough-in only	39,100	sf	0.25	9,775		
316	<u>Security System</u>						
	Security System Access control/CCTV & intrusion detection	39,100	sf	1.25	48,875		
318	SUBTOTAL					303,025	

D5040 OTHER ELECTRICAL SYSTEMS

321	<u>Miscellaneous</u>						
322	Demolition work; cut and cap only	39,100	sf	0.50	19,550		
323	Lightning Protection system	1	ls	15,000.00	NIC		
324	Temporary power	1	ls	15,000.00	15,000		
325	Fees & Permits	1	ls	10,000.00	10,000		
326	SUBTOTAL					44,550	

329	TOTAL - ELECTRICAL						\$1,178,450
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332	E10 EQUIPMENT						
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E10 EQUIPMENT, GENERALLY

335	Food Service equipment - warming kitchen	1	ls	15,000.00	15,000		
336	SUBTOTAL					15,000	

338	TOTAL - EQUIPMENT						\$15,000
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341	E20 FURNISHINGS						
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E2010 FIXED FURNISHINGS

344	Window treatments				NIC		
345	Science and Art - base cabinet and countertop	125	lf	450.00	56,250		
346	SUBTOTAL					56,250	

E2020 MOVABLE FURNISHINGS

349	All movable furnishings to be provided and installed by owner						
350	SUBTOTAL					NIC	

352	TOTAL - FURNISHINGS						\$56,250
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355	F10 SPECIAL CONSTRUCTION						
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Conceptual Estimate GFA 39,100

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATIONS TO EXISTING BUILDING

F10 SPECIAL CONSTRUCTION

No work in this section

SUBTOTAL -

TOTAL - SPECIAL CONSTRUCTION

F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

Remove roofing **44,130** sf 2.00 NR

Remove exterior wall assembly for new windows **360** sf 8.00 NIC
openings

Remove exterior storefront **1,280** sf 5.00 6,400

Demolish existing partitions **3,604** lf 20.00 72,080

Remove existing flooring **39,100** sf 2.00 ETR

Remove existing ceiling **39,100** sf 1.50 58,650

Remove existing doors **118** ea 150.00 17,700

Miscellaneous interior demolition **39,100** sf 2.00 78,200

SUBTOTAL 233,030

F2020 HAZARDOUS COMPONENTS ABATEMENT

See summary

SUBTOTAL

TOTAL - SELECTIVE BUILDING DEMOLITION \$233,030



Conceptual Estimate

GFA4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

GROSS FLOOR AREA CALCULATION

Classrooms					
Breakout					
Office / Teacher Planning					
Service					
Toilet Room, existing					
Toilet Room, new					
Storage					
Nurse					
Arts / Music /Science					
Cafeteria					
Kitchen / Servery					
Corridor					
Gym Connector					74
Gym					4,561
Stage					
Vestibule					
Balance					

TOTAL GROSS FLOOR AREA (GFA)	4,635	sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Foundation frost wall, assume 4'-0"H x 1'-0"D	61	cy	750.00	45,750	
Foundation wall footing, assume 3'-0"W x 2'-0"D	92	cy	650.00	59,800	
E/B for foundations	168	cy	30.00	5,040	
SUBTOTAL					110,590

A1020 SPECIAL FOUNDATIONS

No work in this section
SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

Slab on grade @ Gym	5,735	sf	10.00	57,350	
Slab on grade @ Gym Connector	80	sf	10.00	800	
Cut and patch existing slab for new plumbing		sf	5.00		
E/B for foundations	233	cy	30.00	6,990	
SUBTOTAL					65,140

TOTAL - FOUNDATIONS	\$175,730
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

No work in this section
SUBTOTAL-

B1020 ROOF CONSTRUCTION

New roof construction, assume 11 psf @ Gym Connector	1	tns	5,000.00	5,000	
SUBTOTAL					5,000



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GFA 4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

TOTAL - SUPERSTRUCTURE	\$5,000
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Gym Connector assume 12'H, 70% of surface	218	sf					
Exterior cladding, brick @ Gym Connector	218	sf	35.00	7,630			
Exterior CMU backup	218	sf	25.00	5,450			
Misc. metals to CMU backup	218	sf	2.00	436			
AVB to exterior wall	218	sf	1.10	240			
Insulation to exterior wall	218	sf	3.00	654			
GWB interior framing & face to exterior wall	218	sf	11.00	2,398			
SUBTOTAL						16,808	

B2020 WINDOWS/CURTAINWALL
Exterior Wall Area - Glazed

061000 ROUGH CARPENTRY

No work in this section

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

No work in this section

080001 WINDOWS

No work in this section

SUBTOTAL -

B2030 EXTERIOR DOORS

No work in this section
SUBTOTAL -

TOTAL - EXTERIOR CLOSURE	\$16,808
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B30 ROOFING

B3010 ROOF COVERINGS

No work in this section
SUBTOTAL -

B3020 ROOF OPENINGS

No work in this section
SUBTOTAL -

TOTAL - ROOFING	
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

No work in this section



Conceptual Estimate

GFA4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

110	SUBTOTAL					-	
111							
112	C1020 INTERIOR DOORS						
113	No work in this section						
114	SUBTOTAL					-	
115							
116	C1030 SPECIALTIES / MILLWORK						
117	055000 MISCELLANEOUS METALS						
118	No work in this section						
119							
120	061000 ROUGH CARPENTRY						
121	No work in this section						
122							
123	064020 INTERIOR ARCHITECTURAL WOODWORK						
124	No work in this section						
125							
126	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
127	No work in this section						
128							
129	101400 SIGNAGE						
130	No work in this section						
131							
132	101100 VISUAL DISPLAY SURFACES						
133	No work in this section						
134							
135	102110 TOILET COMPARTMENTS						
136	No work in this section						
137							
138	102800 TOILET ACCESSORIES						
139	No work in this section						
140							
141	104100 AED CABINETS						
142	AED cabinets ; allow	1	ls	1,500.00	1,500		
143							
144	104400 FIRE PROTECTION SPECIALTIES						
145	Fire extinguisher cabinets	2	ea	350.00	700		
146							
147	105000 LOCKERS						
148	No work in this section						
149	SUBTOTAL					2,200	
150							
151	TOTAL - INTERIOR CONSTRUCTION						\$2,200
152							
153							
154	C20 STAIRCASES						
155							
156	C2010 STAIR CONSTRUCTION						
157	No work in this section					ETR	
158	SUBTOTAL					-	
159							
160	C2020 STAIR FINISHES						
161	No work in this section					ETR	
162	SUBTOTAL					-	



Conceptual Estimate

GFA4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

TOTAL - STAIRCASES

C30INTERIOR FINISHES

C3010WALL FINISHES
No work in this section
SUBTOTAL

-

C3020FLOOR FINISHES
Gym floor finish4,500sf15.0067,500
SUBTOTAL67,500

C3030CEILING FINISHES
No work in this section
SUBTOTAL

-

TOTAL - INTERIOR FINISHES	\$67,500
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D10CONVEYING SYSTEMS

D1010ELEVATOR
No work in this section
SUBTOTAL

-

TOTAL - CONVEYING SYSTEMS

D20PLUMBING

D20PLUMBING, GENERALLY
Equipment
Equipment (New gym)4,635sf1.004,635
Plumbing Fixtures
Fixtures (New gym) 6 fixtures4,635sf2.009,270
Piping
Domestic water pipe (New gym)4,635sf4.0018,540
Sanitary waste pipe (New gym)4,635sf4.0018,540
Natural gas pipe (New gym)4,635sf1.004,635
Storm water pipe (New gym)4,635sf0.452,086
Miscellaneous
Miscellaneous (New gym)4,635sf3.0013,905
SUBTOTAL71,611

TOTAL - PLUMBING	\$71,611
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D30HVAC

D30HVAC, GENERALLY
Equipment
Equipment (New gym)4,635sf2.009,270



Conceptual Estimate GFA 4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
PRE-FABRICATED GYM & CONNECTOR							
217	Air Distribution						
218	Air distribution (New gym)	4,635	sf	10.00	46,350		
219	Sheetmetal and accessories						
220	Sheetmetal & accessories (New gym)	4,635	sf	10.00	46,350		
221	Piping						
222	Hot water pipe (New gym)	4,635	sf	6.00	27,810		
223	Condensate drain pipe (New gym)	4,635	sf	0.40	1,854		
224	Automatic Temperature Controls						
225	ATC (New gym)	4,635	sf	2.00	9,270		
226	Balancing						
227	Balancing (New gym)	4,635	sf	0.75	3,476		
228	Miscellaneous						
229	Miscellaneous (New gym)	4,635	sf	4.00	18,540		
230	SUBTOTAL					162,920	
231							
232	TOTAL - HVAC						\$162,920
233							
234							
235	D40 FIRE PROTECTION						
236							
237	D40 FIRE PROTECTION, GENERALLY						
238	Wet sprinkler system (New gym)	4,635	sf	5.25	24,334		
239	SUBTOTAL					24,334	
240							
241	TOTAL - FIRE PROTECTION						\$24,334
242							
243							
244	D50 ELECTRICAL						
245							
246	D5010 SERVICE & DISTRIBUTION						
247	Normal Power						
248	Gear and distribution	4,635	sf	2.00	9,270		
249	Emergency Power						
250	Gear and distribution	4,635	sf	1.50	6,953		
251	Equipment wiring feed and connection						
252	Equipment wiring feed and connection	4,635	sf	1.50	6,953		
253	Gym Equipment wiring feed and connection	1	ls	15,000.00	15,000		
254	Scoreboard inc feeds and connections	1	ls	6,500.00	6,500		
255	SUBTOTAL					44,676	
256							
257	D5020 LIGHTING & POWER						
258	LED lighting	4,635	sf	8.00	37,080		
259	Lighting controls						
260	Automated lighting controls system (local only)	4,635	sf	0.35	1,622		
261	Branch devices						
262	Branch devices	4,635	sf	0.25	1,159		
263	Lighting and branch circuitry						
264	Branch circuitry	4,635	sf	3.50	16,223		
265	SUBTOTAL					56,084	



Conceptual Estimate

GFA 4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

D5030 COMMUNICATION & SECURITY SYSTEMS

Fire Alarm

New FA system 4,635 sf 1.50 6,953

Bi-Directional Amplifications system 4,635 sf 0.50 NIC

Telephone/Data/CATV

Equipment By Others

Devices and cabling 4,635 sf 1.00 4,635

Rough-in 4,635 sf 0.50 2,318

Clock/PA System

Clock/PA System 4,635 sf 1.00 NIC

AV

AV equipment provided by others By Others

Sound system 1 ls 15,000.00 15,000

Security System

Security System Access control/CCTV & intrusion detection 4,635 sf 1.00 4,635

SUBTOTAL 33,541

D5040 OTHER ELECTRICAL SYSTEMS

Miscellaneous

Demolition work NIC

Lightning Protection system 1 ls 2,500.00 NIC

Temporary power 1 ls 2,500.00 2,500

Fees & Permits 1 ls 1,500.00 1,500

SUBTOTAL 4,000

TOTAL - ELECTRICAL \$138,301

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

No work in this section

SUBTOTAL -

TOTAL - EQUIPMENT

E20 FURNISHINGS

E2010 FIXED FURNISHINGS

Window treatments NIC

SUBTOTAL -

E2020 MOVABLE FURNISHINGS

All movable furnishings to be provided and installed
by owner

SUBTOTAL NIC

TOTAL - FURNISHINGS



Conceptual Estimate

GFA4,635

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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PRE-FABRICATED GYM & CONNECTOR

F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION

New Modular Pre-fabricated Gym; basic package	1	ls	405,000.00	405,000		
SUBTOTAL						405,000

TOTAL - SPECIAL CONSTRUCTION\$405,000

F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION

SUBTOTAL						-
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F2020 HAZARDOUS COMPONENTS ABATEMENT

See summary						
SUBTOTAL						

TOTAL - SELECTIVE BUILDING DEMOLITION



Conceptual Estimate

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>
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SITEWORK

G SITEWORK

G10 SITE PREPARATION & DEMOLITION

Site construction fence/barricades	900	lf	18.00	16,200	
Site construction fence gates	1	ls	1,000.00	1,000	
Site demolition	1	ls	20,000.00	20,000	
Site Earthwork					
Fine grading	13,096	sy	1.00	13,096	
Cut and Fill; assume balanced site	4,365	cy	10.00	43,650	
Silt fence/erosion control, wash bays, stock piles	900	lf	12.00	10,800	
Silt fence maintenance and monitoring	1	ls	5,000.00	5,000	
Hazardous Waste Remediation					
Remove existing underground fuel storage tanks					NIC
Dispose/treat contaminated soils					NIC
SUBTOTAL					109,746

G20 SITE IMPROVEMENTS

Resurface asphalt	63,126	sf	2.22	140,140	
VGC	3,775	lf	42.00	158,550	
Line painting including crosswalk and heap space hatching	1	ls	15,000.00	15,000	
HC curb cuts	2	loc	350.00	700	
Signage	1	ls	5,000.00	5,000	
Pedestrian Paving					
Concrete paving	10,022	sf			
gravel base; 8" thick	249	cy	40.00	9,960	
4" concrete paving	10,022	sf	10.00	100,220	
premium for steps	75	lf	250.00	18,750	
Site Improvements					
Flag pole	1	ea	5,000.00	5,000	
Play equipment - allowance					NIC
Site Walls					
Retaining wall w/ brick veneer wall, footing and precast concrete cap; 2' high, allowance	100	lf	810.00	NIC	
SUBTOTAL					453,320
Landscaping					
Topsoil - import topsoil; minimum 6"	828	cy	60.00	49,680	
Lawn - loam & seed	44,716	sf	0.25	11,179	
Site landscape, island planters	4,146	sf	3.00	12,438	
Site landscape, outdoor learning	4,998	sf	6.00	NIC	
Site landscape & surfacing, playground	3,299	sf	17.00	56,083	
Site landscape, soft play area	6,480	sf	2.00	12,960	
Site landscape, tot lot	3,998	sf	2.00	7,996	
SUBTOTAL					150,336

G30 CIVIL MECHANICAL UTILITIES

Water supply					
New combination fire/water service	75	lf	90.00	6,750	
Fire protection loop - assumed	700	lf	90.00	63,000	
Connect to existing	1	loc	10,000.00	10,000	
FD connection	1	ea	2,000.00	2,000	
Gate valves	2	ea	750.00	1,500	
Fire hydrants	2	ea	5,000.00	10,000	
Sanitary sewer					
New sanitary lines	75	lf	65.00	4,875	
Connect to existing	1	loc	10,000.00	10,000	



Conceptual Estimate

<i>CSI CODE</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>EST'D COST</i>	<i>SUB TOTAL</i>	<i>TOTAL COST</i>
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SITEWORK

59	<u>Storm water</u>						
60	Allowance for drainage systems at new paving	73,148	sf	0.70	51,204		
61							
62	<u>Gas service</u>						
63	E&B trench for new gas pipe - install by plumbing					ETR	
64	SUBTOTAL						159,329
65							
66	G40 ELECTRICAL UTILITIES						
67	New services (power and communications, allow) for new gym	1	ls	20,000.00	20,000		
68							
68	<u>Site lighting</u>						
69	Site lighting at new areas only	1	ls	25,000.00	25,000		
70	<u>Site communications and security</u>						
71	Site Security	1	ls	50,000.00		NIC	
72	Existing telecommunications service to remain						
73	SUBTOTAL						45,000
74							
75							

TOTAL - SITE DEVELOPMENT							\$917,731
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SPRINGFIELD PREP CHARTER SCHOOL PRELIMINARY DESIGN PROGRAM

EXISTING STRUCTURAL SYSTEMS

SUMMARY

The existing building, circa 1970, has an approximate footprint of 44,330 gross square feet and is located on Roosevelt Avenue in the city of Springfield, Massachusetts.

Overall the structural systems of the building are in good general condition and can serve the needs of the proposed school community for years to come. There are potential Code requirements for compliance with both the seismic and increased snow load but this will be driven by the Classification of Work and the agreed upon Compliance Method. Refer to the Architectural portion of this report for additional information.

GENERAL BUILDING DESCRIPTION

Building Foundation: Much of the foundation was not visible. Based on the exposed sections and our experience with similar type buildings, the foundation consists of a reinforced-concrete wall bearing upon a conventional spread footing.

Basement/Crawl Spaces: There is no basement or crawlspace.

General Condition: Good

Age: The building foundations are original.

Concerns:

Foundation cracks/settlement: No significant foundation cracks or indications of settlement were noted.

Exposed concrete slabs: Floor coverings limited our assessment of the slab's condition. Those areas exposed to view were in good general condition.

Flooding/water damage: No major areas of flooding or water damage due to foundation issues were noted.

Recommendations: No physical deficiencies/deferred maintenance or immediate / short term needs were noted. No significant expenditures for the foundation are anticipated during the fit-out.

Building Roof Framing Systems: The roof framing system consists of steel beams as the primary framing members with open web steel joists as the secondary infill members. A metal roof deck finishes off the system and provides support for the roofing system. The roof loads are transferred to the foundation system through a series of HSS (hollow structural shapes) steel columns. Observations of the roof framing revealed no signs of distress and the members were in good general condition. There are several areas where, at some point in time, supplemental framing was added to accommodate the new rooftop equipment loads.

The flat roof has several roof drains, however, there was standing water observed throughout the roof area. The roof does not appear to have sufficient pitch to divert the water towards the drains.

General Condition: Good

Age/ Last Action: The superstructure is original and has been well maintained.

Concerns:

Cracks on exterior walls: No significant cracking of the facades or floors suggestive of underlying structural concerns or movement was observed.

Bowed walls or sagging ceiling or floors: No evidence of bowed walls or sagging ceilings were noted or reported.

Deteriorated framing or support members: No evidence of deteriorated framing or support members were noted or reported.

Other: No other concerns relating to the superstructures were noted.

Recommendations: No physical deficiencies/deferred maintenance or immediate / short term needs were noted. As long as the new mechanical equipment is situated in the same location as the existing units, no significant expenditures for the superstructure are anticipated during the proposed fit-out.

STRUCTURAL INVENTORY

No structural drawings can be located for the building. The following descriptions are based on limited visual observations on site.

1. Design Loads:Massachusetts had no Building Code legally in effect at that time.
2. Foundation:Not visible
3. Bearing Walls:Not applicable.
4. Floors: Concrete slab on grade
5. Roofs: The flat roof is framed with steel beams as the primary framing members and open web joists as the secondary infill members. A metal deck
6. Lateral load Resisting System:None observed
7. General Condition:
 - a. The condition of the structure overall is good. The exterior walls show no signs of distress. The floor slabs show no signs of excessive deflection or distress, although they are mostly hidden from view.
8. Capacity assessment
 - a. Determining the exact structural capacity of the roof framing systems is outside the scope of this Conditions Assessment. In order to determine the live load capacity rating, the beams and joists would need to be measured.

ØØ Lateral Force Resisting System:

- I-Ø There is no specific Lateral Force Resisting System(LFRS) in this building, it relies solely on the building's dead weight to resist the lateral loads imposed upon it. At the time, buildings were designed to resist wind forces but there were no provisions for seismic loading.

BUILDING CODE REVIEW

Modern building codes are typically broken down into two categories: existing buildings and new buildings. In Massachusetts, the current building code is the 9th Edition. For new construction, this Code is based on the International Building Code, 2015 Edition, as modified by specific amendments made by Massachusetts (New Code). For existing buildings, the Code is based on the International Existing Building Code, 2015 Edition, also with Massachusetts amendments (IEBC-MA).

In general, the IEBC-MA does not require that existing buildings satisfy all the same requirements as the Code for New Construction. Existing buildings are automatically presumed to meet the Code requirements in effect at the time of original construction, unless there are obvious deficiencies. No significant structural problems have been observed at this point. If left in its current use and configuration, this building structure would be grandfathered. However, if changes were made, then a Code review would be triggered.

In Massachusetts there was no State Building Code until 1974. As a result, the building does not meet the requirements of any specific Building Code. In the 1st Edition of the Massachusetts State Building Code, adopted after the construction of both buildings, the flat roof snow load for Springfield was 30 psf. Wind loads were 10 psf for buildings under less than 50 feet, Exposure B. No seismic loads were included in the 1st Edition.

When existing buildings are going to be repaired, altered, added onto, or changed in use, then the IEBC-MA stipulates specific criteria to be applied in a review of the proposed project. The degree to which these criteria approach the New Code depends on the project's impact on the existing building.

The IEBC specifies three different methods of evaluation of existing buildings: the "Prescriptive Compliance Method", the "Work Area Compliance Method", and the "Performance Compliance Method". The choice of method depends on the impact and complexity of the project. These methods evaluate all aspects of the project, not just structural. Most projects use one of the first two methods, as the third method is more complex and requires complete analysis of all the existing building systems.

In general, the IEBC-MA requires that existing buildings meet New Code if alterations increase the gravity load effects by more than 5% or lateral load effects by more than 10%. These thresholds can be applied as limits to new loads placed on an existing structure, or to modifications that diminish existing structural capacities.

The live load capacity of the First Floor assembly is not an issue since it is on a concrete slab on grade.

The present-day Code calls for a snow load of 35 psf in Springfield, which is a 16% increase over the 30 psf that was most likely used during the construction of the building. The 9th Edition of the Code also requires that special attention is given to any roof areas subjected to snow drifts.

The in-place membrane roof is approaching the end of its lifespan. If the proposed reroofing were to require the complete removal of the existing roofing (thereby exposing the roof deck), the existing structure would need to be analyzed and comply with the new snow loading criteria.

Newly imposed loads are also subjected to a similar review, following similar guidelines. Loads imposed on existing structures are typically limited to a 5% to 10% increase for gravity and lateral effects respectively.

If a project's impact on the existing building is significant enough, then a more thorough analysis of the gravity and lateral loading is required, and reinforcement may be necessary. In the case of this building, the most significant issue with introducing additional lateral loads upon the structure is the building's lack of a lateral bracing system.

The proposed renovations may include the creation of new window openings to allow for natural light within the classrooms. As a result, the building will need to comply with the current Energy Code. This will trigger compliance with the modern-day wind and seismic loads. In the absence of a LFRS, we will need to introduce a LFRS into the structure. This will be accomplished with a series or combination of either moment frame, braced frames, or Chevron braces. The exact type of bracing will need to be coordinated with the floorplan. There is a high probability that new and/or supplemental foundation elements will need to be instituted.

As mentioned above, the IEBC-MA also requires review of the existing LFRS, and consideration of the project's effect on it. As with the roof framing, if lateral loads are increased by more than 10%, or if the capacity of the LFRS is reduced by more than 10%, then thorough analysis of the in-place LFRS is required.

If the Alterations are classified as Level 1, Chapter 7, 707.2 Addition or Replacement of Roofing or Replacement of Equipment, states the following:

Where addition or replacement of roofing or replacement of equipment results in additional dead loads, structural components supporting such reroofing or equipment shall comply with the gravity load requirements of the International Building Code.

Exceptions:

- 1. Structural elements where the additional dead load from the roofing or equipment does not increase the force in the element by more than 5 percent.*
- 2. Buildings constructed in accordance with the International Residential Code or the conventional light-frame construction methods of the International Building Code and where the dead load from the roofing or equipment is not increased by more than 5 percent.*
- 3. Addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m²) or less over an existing, single layer of roof covering. (DOES NOT APPLY).*

If the Alterations are classified as Level 2, Chapter 8, 807.4 Existing Structural Elements Carrying Gravity Loads, states the following:

Alterations shall not reduce the capacity of existing gravity load-carrying structural elements unless it is demonstrated that the elements have the capacity to carry the applicable design gravity loads required by the International Building Code. Existing structural elements supporting any additional gravity loads as a result of the alterations, including the effects of snow drift, shall comply with the International Building Code.

Exceptions:

- 1. Structural elements whose stress is not increased by more than 5 percent.*
- 2. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the existing building and its alteration comply with the conventional light-frame construction methods of the International Building Code or the provisions of the International Residential Code. (DOES NOT APPLY).*

And Section 807.5 Existing Structural Elements Resisting Lateral Loads, states the following:

Except as permitted by Section 807.6, where the alteration increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the alteration decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the wind and seismic provisions of the International Building Code. Reduced International Building Code-level seismic forces in accordance with Section 301.1.4.2 shall be permitted.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is not more than 10 percent greater than its demand-capacity ratio with the alteration ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with International Building Code Sections 1609 and 1613. Reduced International Building Code level seismic forces in accordance with Section 301.1.4.2 shall be permitted. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction.

Lastly, Section 807.6 Voluntary Lateral Force-Resisting System (LFRS) Alterations, states the following:

Alterations of existing structural elements and additions of new structural elements that are initiated for the purpose of increasing the lateral force-resisting strength or stiffness of an existing structure and that are not required by other sections of this code shall not be required to be designed for forces conforming to the International Building Code, provided that an engineering analysis is submitted to show that:

- 1. The capacity of existing structural elements required to resist forces is not reduced;*
- 2. The lateral loading to existing structural elements is not increased either beyond its capacity or more than 10 percent;*

3. New structural elements are detailed and connected to the existing structural elements as required by the International Building Code;

4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by the International Building Code; and

5. A dangerous condition as defined in this code is not created. Voluntary alterations to lateral force-resisting systems conducted in accordance with Appendix A and the referenced standards of this code shall be permitted.

In the absence of a true lateral bracing system, we could (if necessary) introduce a voluntary LFRS. By doing so, we are improving the building's performance but not totally complying with the IBC requirements. Most building officials will accept this as a viable alternative.

If the Alterations are classified as Level 3, Chapter 9, Section 907.4.2 Substantial Structural Alteration states:

Where more than 30 percent of the total floor and roof areas of the building or structure have been or are proposed to be involved in structural alteration within a 5-year period, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered building or structure complies with the International Building Code for wind loading and with reduced International Building Code-level seismic forces in accordance with Section 301.1.4.2. The areas to be counted toward the 30 percent shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and in-filled courts and shafts. (DOES NOT APPLY).

Based upon your proposed building improvements, 907.4.4 Limited Structural Alteration would apply and it states:

Where the work does not involve a substantial structural alteration and the building is not assigned to Seismic Design Category F, the existing elements of the lateral load-resisting system shall comply with Section 807.5.

EVALUATION OF CODE & AAB COMPLIANCE – 2071 ROOSEVELT AVENUE

Introduction

The existing commercial property located at 2071 Roosevelt Avenue in Springfield, Massachusetts is currently used as an office building (Group B) and has an assessed value of \$3,729,900. Springfield Prep Public Charter School proposes to renovate the building for use as a college preparatory school, grades K-8 (Use Group E). The scope of work includes a full renovation of the interior of the existing building and an addition of a Gymnasium/ Assembly space (Use Group A-3).

Following is a list of applicable codes:

Code Type	Applicable Code (Model Code Basis)
Building	780 CMR: Massachusetts State Building Code, 9 th Edition • Amended 2015 International Building Code (IBC) • Amended 2015 International Existing Building Code (IEBC)
Fire Prevention	527 CMR: Massachusetts Fire Prevention Regulations (2015 NFPA 1) M.G.L. Chapter 148 Section 26G – Sprinkler Protection
Accessibility	521 CMR: Massachusetts Architectural Access Board Regulations
Electrical	527 CMR 12.00: Massachusetts Electrical Code • Amended 2017 National Electrical Code
Mechanical	2015 International Mechanical Code (IMC)
Plumbing	248 CMR: Massachusetts Plumbing Code
Energy Conservation	2015 International Energy Conservation Code

International Existing Building Code

The 2015 International Existing Building Code with Massachusetts amendments allows for three separate compliance methods, the Prescriptive Method (in general, altered areas must comply with the code for new construction), Work Area Method (level of compliance is based on the classification of work), and Performance Compliance Method (numerical method that allows tradeoffs for deficiencies). This report is based on the Work Area Method.

1. Work Area and Classification of Work:

The proposed work contains alterations to the existing building and a change of occupancy. The renovations in the existing building will be classified as a Level 3 alteration, which includes the reconfiguration of spaces, the addition or elimination of doors and windows, the reconfiguration or extension of systems, and/ or the installation of additional equipment in more than 50% of the aggregate area of the building. Therefore, the work must comply with IEBC chapters 6, 7, 8, 9, 10 and 11. However, as structural alterations will not be made, the renovation is not subject to Section 907 of the IEBC. See structural report for more details.

2. Existing and Proposed Occupancy Classification:

The building is currently categorized by the city as an office building. Office buildings fall under Use Group B (Business). The proposed occupancy is Use Group E (K-12 Educational) for the renovation of the existing building, with accessory Use Group A-3 for the Cafeteria space, as well as accessory Use Group A-3 (Gymnasium) for the addition of a Gymnasium/ Assembly space.

3. Construction Type:

It is our understanding that the existing building is Type IIB, noncombustible steel frame with steel and concrete roof construction typical of commercial construction.

4. Height and Area Limitations:

Since the proposed work includes an addition to increase the area of the building, the school is subject to the area limitations for new construction based upon the construction type of the building (IECBC 1102.2). Therefore the existing building and the new addition together must comply with the following height and area limitations.

Code Reference	Type IIB - Use Group E	
	Height	Area
IBC Table 504.3, 504.4, & 506.2: ^A Tabular Value	3 St. (75 ft)	58,000 ft ²
780 CMR Section 506.3: Sprinkler Height Increase	-	-
780 CMR Section 506.2 Street Frontage Increase^B	-	Not calculated at this time TBD
Height and Area Allowed	3 St. (75 ft)	58,000 ft ²⁺
Actual Height and Area	1 St. (~30 ft)	48,965ft ²

5. Interior Finishes:

The existing interior finish of walls and ceilings in the work area and in all exits and corridors serving the work area must comply with the code requirements for new construction (IEBC 803.4 and 903.3). All newly installed wall and ceiling finishes, and interior trim materials must also comply with 780 CMR Table 803.11 (IEBC 702.1, 702.2, 702.3). The requirements are summarized below:

Walls & Ceilings (780 CMR Table 803.11)

Use Group:	E	A-3
Exit Enclosures	Class B	Class B
Exit Access Corridors	Class C	Class B
Rooms & Enclosed Spaces	Class C	Class C

6. Means of Egress:

The means of egress including the number of exits and egress capacity must be sufficient for the number of occupants for all floors(780 CMR 102.6.4). Compliant exit signs and egress lighting must be provided in all renovated areas (780 CMR 102.6.4).

The proposed layout of the building includes multiple exterior doors around the full perimeter of the single story building. These proposed exits provide sufficient egress capacity for the buildings 560 person occupant loadbased upon full occupancy.

General Egress Requirements

For a Level 3 Alteration, the means of egress throughout the work areas are required to comply with Chapters 7, 8 and 9 of the existing building code (IEBC 704.1 & 805.1). These chapters include the following provisions:

- 6.1 All rooms or spaces in the work area with a common path of travel distance of over 75 feet or with an occupant load greater than 50 must be provided with two egress doors (IEBC 805.4.1.1).

Typical classrooms have an occupant load of less than 50 people and a travel distance less than 75 feet, therefore only require a single means of egress. Larger spaces such as the Gymnasium and Cafetorium have two or more means of egress as required.

- 6.2 In the work area, and in the egress path serving the work area, egress doors must swing in the direction of egress travel where serving an occupant load of 50 or more people (IEBC

805.4.2). Where the work area exceeds 50% of the floor the entire floor must comply with this section (IEBC 805.4.2.1).

Existing egress doors serving more than 50 occupants swing in the direction of egress. All renovations will include insuring all doors serving more than 50 occupants do swing in the direction of egress.

6.3 The maximum length of an existing, newly, constructed, or extended dead-end corridor shall not exceed 50 feet on floor equipped with an automatic sprinkler in accordance with the International Building Code. Proposed renovations and the addition to the existing building will include a full sprinkler system. The building shall not include any dead-end corridors that exceed the allowed limits. No existing or new dead-end corridors shall be greater than 50 feet.

6.4 Illuminated exit signs and means-of-egress lighting must be provided in all work areas in accordance with the code for new construction (780 CMR 102.6.4). If the work area exceeds 50% of the floor area, this requirement applies to the entire floor (IEBC 805.7.2 & 805.8.2). In the event of power supply failure in rooms and spaces that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas: aisles, corridors, and exit access stairs and ramps (780 CMR 1008.3.1). Similarly, an emergency electrical system shall automatically illuminate all of the following areas: electrical equipment rooms, fire command centers, fire pump rooms, generator rooms, public restrooms with an area greater than 300 sf (780 CMR 1008.3.3). All means of egress lighting and exit signs must be provided with an emergency power supply to assure continued illumination for not less than 1.5 hours in case of primary power loss (780 CMR 1008.1 1008.3.4 & 1013.1).

7. Required Fire Protection Systems:

Sprinklers – MGL Chapter 148, Section 26G:

Every building over 7,500 sf, including additions or major alterations must be sprinklered if adequate water supply and pressure exists. A major alteration includes work affecting more than 33% of the work area, or if the cost of work totals 33% or more of the assessed value of the building. Any work on the existing office building costing over 33% of the \$3,390,808.00(\$1,118,970.00) would result in the requirement to sprinkler the building as a sufficient water supply exist, and the building exceeds 7,500 sf.

- Automatic sprinkler system. The IEBC requires sprinkler protection throughout the work area where the work area exceeds 50% of an individual floor (IEBC 804.2.2). However, as discussed above, if the existing building is substantially renovated the Massachusetts Sprinkler Law requires sprinkler protection throughout the building (MGL c. 148 s. 26G).

Under both the building code and MGL Ch. 148, Section 26G, the building will be required to be furnished with a sprinkler system.

- Fire alarms and detection shall be provided throughout the work area. Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water flow detection devices (IEBC 904.2 and 780 CMR 907.2).
- Fire extinguishers (527 CMR 1 Section 13.6 & 780 CMR 906.1).

Fire extinguishers must be located throughout the building so that the maximum travel distance to an extinguisher is less than 75 feet. The building has existing fire extinguishers; however compliant spacing was not evaluated. Any proposed renovations will include fire extinguisher placement with a maximum travel distance of 75 feet to the nearest fire extinguisher.

8. Energy Code Provisions for Existing Buildings

Level 3 alterations to existing buildings are permitted without requiring the entire building to comply with the energy requirements of the International Energy Conservation Code (IECC). The alterations (new elements) shall conform to the energy requirements of the IECC as they relate to new construction only (IEBC 908.1).

9. Ventilation and Daylighting Requirements

All reconfigured spaces must provide natural or mechanical ventilation in accordance with the International Mechanical Code. Altered existing mechanical ventilation may be used if they provide not less than 5cfm of outdoor air per person and not less than 15 cfm of ventilation air per person (IEBC Section 809).

The IEBC grants a dispensation on the requirement that 8% of classroom wall area be openings to the exterior.

10. Structural Provisions for Existing Buildings

Structural alterations and additions to buildings must be evaluated by a registered structural engineer to determine compliance with the IEBC based on the scope of work. New structural elements in alterations, including connections and anchorage, shall comply with the International Building Code (IEBC 807.2).

11. Accessibility for Persons with Disabilities

Massachusetts Architectural Access Board Regulations

Alterations to the building must comply with the requirements of the Massachusetts Architectural Access Board Regulations (521 CMR). For existing building alterations the requirements of 521 CMR are based on the cost of the proposed work:

- A. If the cost of the proposed work is **less than \$100,000**, only the new work must comply.
- B. If the cost of the proposed work is **greater than \$100,000** then all new work must comply and the existing building must include an accessible public entrance, toilet room, telephone and drinking fountain (if public phones are provided) (521 CMR Section 3.3.1(b)). Exempt work when calculating the cost of work includes roof repair or replacement, window repair or replacement, and repointing and masonry repair work unless the exempt work exceeds \$500,000.
- C. If the cost of the proposed work is **greater than 30% of the full and fair cash value** of the existing building, the entire building is required to comply with 521 CMR (521 CMR Section 3.3.2). There is no exempt work, i.e. the entire project costs apply to determining the 30% criteria.

The cost of all work performed on a building in any 36 month period must be added together in determining the applicability of 521 CMR (521 CMR Section 3.5). The full and fair cash value of the existing building is determined by using the 100% equalized assessed value of the building on record with the city assessor's office. The City of Springfield's on-line assessor's database indicated the assessed value of the building is \$3,729,900.00* and therefore full compliance with 521 CMR would be required if the cost of renovations and/or an addition amounted to \$1,118,970.00.

Assessed value/ Assessment Ratio = Equalized Assessment Value
\$3,729,900.00/ 1.1 = \$3,390,808.00
30% of \$3,390,808.00 = \$1,017,242.00

Assuming the cost of a significant renovation would exceed 30% of the full and fair cash value of the building, all portions of the building open to the general public (students, visitors, etc.) would have to be upgraded to comply in full with the current requirements of 521 CMR. Any employee-only areas such as staff lounges, staff bathrooms, and staff work areas are not required to comply with 521 CMR, as long as general public access is not permitted. It should be noted that the Access Board expects to extend their jurisdiction to employee areas.

Major upgrades required to meet full compliance with the provisions of 521 CMR include the following building features (note that this is not a comprehensive list of all deficiencies):

- All public entrances must be accessible (521 CMR 25.1). Currently, the building has multiple accessible entrances around the perimeter. The proposed renovation includes a new accessible entrance on the west side and east side of the building.

West Entrance	East Entrance

- Accessible routes throughout the building (521 CMR 20.1).
- All toilet rooms must be accessible (521 CMR 30). Some of the existing toilet rooms included fully-compliant accessible fixtures, although most toilet rooms were functionally accessible. The repairs required at most restrooms , including floor repair or replacement, will result in the restrooms being renovated to provide more accessible toilet and sink fixtures.

Compliant Single User Bathroom	Typical Toilet Room

- When more than one drinking fountain is provided on a floor, one in each location shall be accessible and shall be on an accessible route (521 CMR 36.00).

- The maximum slope of a ramp shall be 1:12 (8.3%) where the maximum rise for any run shall be 30" (521 CMR 24).
- All required egress doors which lead directly to the outside at grade, shall be made accessible at the exterior as well as the interior so as to provide a safe path of travel to a public way for persons who are disabled. Such egress doors shall be provided with illuminated signage identifying accessibility by the use of the international symbol contained within the "exist" sign (521 CMR 26.1.2).

Americans with Disabilities Act Guidelines

The ADA Guidelines are not enforced by the Commonwealth of Massachusetts, they can only be enforced through a civil lawsuit or complaint filed with the U.S. Department of Justice. Compliance with the ADA Guidelines is triggered by renovations to the existing building. All renovations to the building must be made to ensure that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities (28 CFR Part 36 Section 36.402(a)). Alterations made to provide an accessible path of travel to altered areas and accessible facilities (i.e. provide accessible toilet facilities) are not required if the cost exceeds 20% of the total cost of the alteration (28 CFR Part 36 Section 36.403(f)). However, if the cost to meet these accessibility requirements does exceed 20%, alterations are still required to the maximum extent that the area can be made accessible without exceeding the 20% criteria (28 CFR Part 36 Section 36.403(g)). The ADA also contains less stringent dimensional requirements for some building elements in an existing building where it is infeasible to meet the requirements for new construction (ADA Section 4.1.6).

12. Plumbing

Plumbing counts are based on planned occupancy of the building, not maximum egress occupancy.

Building Classification	Occupants	Toilets Females Males	Urinals Males	Lavatories Each Sex	Drinking Fountains	Other Fixtures
Educational (Kindergarten)	54 students 27 F 27 M	1 per 20 1 per 20 2 2 or 3 co-ed		1 per 20 3	1 per 75 1	
Educational (Elementary) (1st–6th Grade)	324 students 162 F 162 M	1 per 30 1 per 60 6 3	1 per 60* 3	1 per 60 3 3	1 per 75 5	
Educational (Secondary) (7th–8th Grade)	108 students 54 F 54 M	1 per 30 1 per 90 2 1	1 per 90* 1	1 per 90 1 1	1 per 75 2	1 Service Sink Per Floor
Educational (Staff)	65 staff 33 F 33 M	1 per 20 1 per 25 2 2	33%	1 per 40 1 1		
Educational (Kitchen Staff)	4 staff 2 F 2 M	1 per 20 1 per 25 1 gender-neutral^	33%	1 per 40 1		

* Urinals required in addition to toilet fixtures. (248 CMR 10.10.18(p)2)

^ May require a plumbing variance

ACQUISITION PROPERTY CONDITION REPORT

Prepared for:

Springfield Preparatory Charter
School
594 Converse Street
East Longmeadow, MA 01106



2071 Roosevelt Avenue

**2071 Roosevelt Avenue
Springfield, Massachusetts**

EBI Project No. 1319000555

November 7, 2019



November 7, 2019

Mr. William Spirer
Executive Director
Springfield Preparatory Charter School
594 Converse Street
East Longmeadow, MA 01106

**Subject: Acquisition Property Condition Report, 2071 Roosevelt Avenue
2071 Roosevelt Avenue, Springfield, Massachusetts
EBI Project #1319000555**

Dear Mr. Spirer:

Attached please find our *Acquisition Property Condition Report*, (the *Report*) for the above-mentioned asset (the Subject Property). During the property survey and research, our property surveyor met with agents representing the Subject Property, or agents of the owner, and reviewed the property and its history. The *Report* was completed according to the terms and conditions authorized by you. The gathering of data and information for this *Report* has been completed in general conformance with ASTM E 2018 – 15.

The exclusive purpose of the *Report* is to observe the general physical condition and maintenance status of the property, to suggest repair or maintenance items considered customary for the property to continue in its current operation compared to properties of similar age and condition, and to assist *Springfield Preparatory Charter School* in its Due Diligence effort in evaluating the Property.

This *Report* was performed utilizing methods and procedures consistent with established commercial practices and in conformance with industry standards. The suggestions represent *EBI's* opinion based on written, graphic or verbal information, the property condition and data available to us at the time of the survey. Factual information regarding operations, conditions or data provided by the Client, occupants, owner or their representative has been assumed to be correct and complete.

The *Report* speaks only as of its date in the absence of a specific written update of the *Report* signed and delivered by *EBI Consulting*.

Charter School Charter School *EBI* is an independent contractor, not an employee of either party to this transaction, and its compensation was not based on the findings or recommendations made in the *Report* or on the closing of any business transaction.

Thank you for the opportunity to prepare this *Report*, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully Submitted,



For Samantha Spano
Author/ Engineer



Luis Munoz 407.399.4747
Reviewer/Acquisition Services, Senior Program Manager
lmunoz@ebiconsulting.com

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EXECUTIVE SUMMARY TABLE

Property Name: 2071 Roosevelt Avenue Address: 2071 Roosevelt Avenue City and State: Springfield, Massachusetts Site Survey Date: October 22, 2019 Report Date: November 7, 2019 EBI Project #: 1319000555		Property Type: Office Property Age: 49 No. of Units or Tenants: 1 Square Feet: 44,330 Analysis Term (Yrs.): 10		
Section #	Section Name	Immediate Repairs	Short Term Repairs	Replacement Reserves
2.0 SITE CONDITIONS				
2.1	Site Features			
2.2	Landscaping & Site Improvements		\$577	\$5,442
2.3	Pavement and Parking		\$55,106	\$111,043
2.4	Site Amenities		\$300	
2.5	Utilities			
3.0 STRUCTURE				
3.1	Substructure	\$10,200		
3.2	Superstructure			
4.0 BUILDING ENVELOPE				
4.1	Roofing	\$420	\$1,200	\$283,458
4.2	Facades		\$943	\$1,600
4.3	Windows & Doors		\$600	\$38,510
5.0 BUILDING INTERIORS				
5.1	Basements/Attics/Penthouses			
5.2	Interior Finishes & Components		\$146	\$365
6.0 ACCESSIBILITY				
6.1	Accessibility Compliance	\$1,530		
7.0 BUILDING SYSTEMS				
7.1	Building Plumbing			\$89,338
7.2	HVAC	\$3,900		
7.3	Building Electrical	\$2,172	\$600	\$41,057
7.4	Building & Site Fire/Life Safety			
7.5	Elevators & Conveying Systems			
8.0 MUNICIPAL RESEARCH				
8.1	Municipal Information & Zoning			
8.2	Building & Planning Department			
8.3	Fire Department			
9.0 HAZARDS				
9.1.1	Seismic			
9.1.2	Flood Zone			
9.1.3	Wind Zone			
9.2	Suspect Mold and Moisture			
TOTALS:		\$18,222	\$59,472	\$570,813
Dollars per sf/yr				
Present Value of Replacement Reserves Cost Estimate		\$1.31206		\$570,813
Inflated Value of Replacement Reserves Cost Estimate		\$1.43190		\$622,950
Immediate Repairs Cost Estimate		\$18,222		
Short Term Repairs Cost Estimate			\$59,472	
Total Deferred Maintenance Cost Estimate, After Multiplier		\$77,694		

EXECUTIVE SUMMARY

PROPERTY DESCRIPTION

The Subject Property, known as 2071 Roosevelt Avenue, is located in Springfield, Massachusetts at 2071 Roosevelt Avenue in Hampden County. The Property was reportedly constructed in 1970. The Property consists of a one-story, approximately 43,515-net square foot¹ multi-tenant, office building on a 4.3-acre lot.

The office building is “L”-shaped and has rough dimensions of 160 feet in length and 110 deep in depth, and the other leg has rough dimensions of 350 feet in length and 110 feet in depth.

The office areas are finished with standard finishes of similar property use types.

The interior of the property is laid out with individual tenant entrance lobbies at the front of the first floor. No interior common space is provided.

LOCATION

The Subject Property is located in the northeast quadrant of the intersection of Roosevelt Avenue and Main Street.

The Subject Property is bounded on two sides and has approximately 450 feet of frontage along Roosevelt Avenue and 430 feet in depth along Memorial Drive.

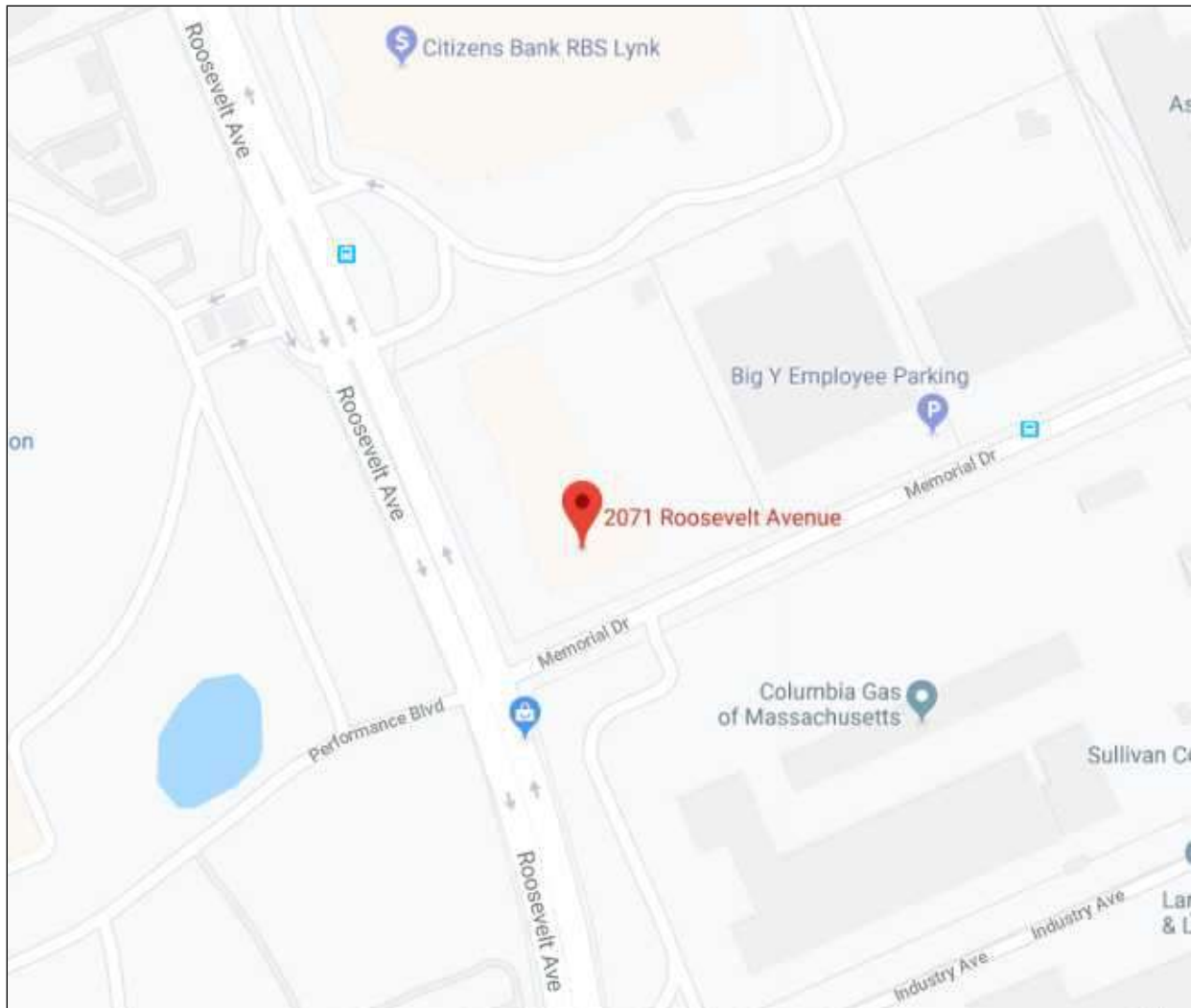
Local surface arteries, Interstate, and state highway systems provide access to the property. The Subject Property is located approximately one mile south of Interstate 291.

A single entry drive provides access to the Subject Property from Memorial drive to the south. The property is improved with asphalt-paved vehicle parking areas and drive lanes located along the front, sides and rear of the building.

The site is generally flat with only minor slopes around the building to accommodate site drainage.

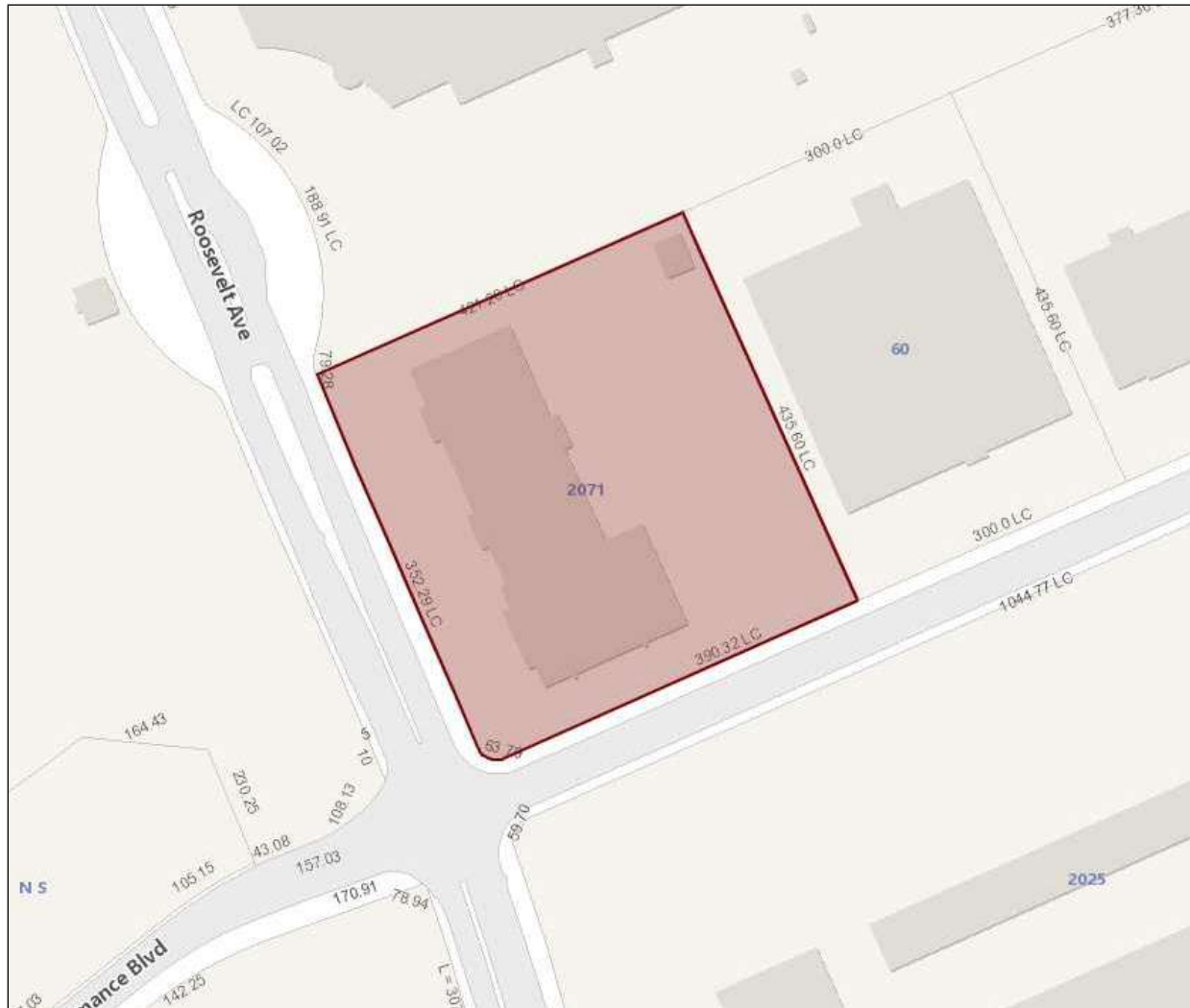
Property use in the vicinity of the Subject Property is primarily characterized commercial and industrial development.

¹ Gross square footage obtained from the Owner's representative.



Location Map

According to the *Springfield, Massachusetts Assessor*, the Subject Property is currently owned by *Saremi LLP*. The Subject Property includes one rectangular-shaped parcel totaling 4.31 acres of land. The *Springfield, Massachusetts Assessor* records indicate that the Subject Property assessor parcel number is 103600413.



Tax Map

SITE OBSERVATION & OBSERVATION SUMMARY

Samantha Spano of *EBI* surveyed the property on October 22, 2019 and was accompanied by, and interviewed, Property Owner Mr. Tyler Saremi, *Saremi LLP* and Maintenance Engineer Mr. Luis Nunez, *Saremi LLP*. At the time of the survey, the weather was partly cloudy and approximately 53° Fahrenheit. During the survey, representative areas of the site, tenant spaces, mechanical spaces, mechanical equipment and building components were observed.

Overall, the Subject Property appears to be in good to fair condition with some deficiencies observed. This Report recommends certain actions and repairs as Immediate Repairs, Short Term Repairs and Replacement Reserves. Please see Sections 2 to 8 of the report for a full description. Other, less significant issues are likely present and additional repairs may be necessary. Please see each specific report sections for details.

It is EBI's professional opinion that the Remaining Useful Life (RUL) of the Subject Property is estimated to be not less than 40 years, based on its current condition and maintenance status. The conditions indicated above are assuming any recommended Immediate Repairs or Replacement Reserves are completed, and appropriate routine maintenance and replacement items are performed on an annual or as-needed basis. Please see the Executive Summary Table for a compilation of recommended Immediate Repairs and/or Replacement Reserves.

CAPITAL, MAINTENANCE & OWNER/TENANT RESPONSIBILITY

Maintenance, repair, and replacement of the tenant space interior finishes at the property are reportedly the responsibility of the Subject Property tenant.

Maintenance, repair, and replacement of the roof, facades, landscaping, pavement and parking, plumbing, mechanical, electrical, HVAC, elevator and conveying, life safety systems and components at the property are reportedly the responsibility of the Subject Property owner.

General day-to-day maintenance is reportedly handled by one, full-time maintenance technician. The maintenance technician splits duties at several other properties and is not always able to respond to immediate needs of the tenant. The maintenance technicians are reportedly qualified to handle general repairs. Repair and maintenance of specialty and large-scale equipment, i.e., central HVAC plant equipment, elevators, roofing, fire and smoke detection and alarm systems, etc., are subcontracted to outside vendors. The level and quality of on-site maintenance repairs reviewed while at the site were of adequate workmanship and materials. In general, the Subject Property appears to have been constructed within industry standards and has been adequately maintained.

IMMEDIATE REPAIRS AND REPLACEMENT RESERVES

Itemized Immediate and Short Term repairs, as well as Replacement Reserves are provided as part of this *Report*. The cost estimates shown on the tables are based on data obtained from the Owner for items already planned, quotes from contractors, EBI's in-house Acquisition database costs and our experience with costs and estimates for similar issues, property and building types, city cost indexes, and assumptions regarding future economic conditions. These projected costs are augmented by cost estimate resource documents such as the *National Construction Estimator*, *Means Building Construction Cost Data*, or *Means Facilities Maintenance and Repair Cost Data Publications*.

IMMEDIATE REPAIRS & SHORT TERM REPAIRS - TABLE 1

Each of the Immediate Repair items noted during the survey are listed on the following page on Table 1, and compiled on the Executive Summary Table. Items are grouped and cross-referenced by Report section. Immediate Repairs as may be identified during the survey are typically limited to life, safety, health, building code violation or building or property stabilization issues observed at a Subject Property.

Each of the Short Term Repair items noted during the survey are listed on the following page on Table 1, and compiled on the Executive Summary Table. Items are grouped and cross-referenced by Report section. Short Term Repairs as may be identified during the survey are typically repairs that are not life, safety, stabilization or code issues, but deferred maintenance or repairs necessary or of significant cost so to warrant them as a Short Term Repair, and/or that cannot be completed within a short timeframe due to the magnitude of the issue, the scope of work or weather.

REPLACEMENT RESERVES - TABLE 2

Each of the Replacement Reserve items noted during the survey are listed on the following pages on Table 2, and compiled on the Executive Summary Table. Items are grouped and cross-referenced by *Report* section. Routine or customary annual maintenance items are not reported or included in this *Report* unless otherwise noted.

Table 1 - Immediate and Short Term Repairs

2071 Roosevelt Avenue
2071 Roosevelt Avenue
Springfield, Massachusetts
EBI Project # 1319000555

Site Survey Date: 10/22/2019
Report Date: 11/7/2019
Property Type: Office
Number of Buildings: 1
Number of Floors: 1

Building Area: 43,505
Number of Units: 1
Property Age: 49
Analysis Term: 10

SECTION NUMBER	SECTION NAME	RECOMMENDED WORK	QUANTITY	UNIT COST	Markup for Contingency, Permits, Overhead/Profit, General Conditions, etc.	UNIT COST (Including Markup)	UNIT DESCRIPTION	ESTIMATED IMMEDIATE REPAIR COST	Short Term Repair?	ESTIMATED SHORT TERM REPAIR COST	COMMENTS OR ADDITIONAL DESCRIPTION
2.0 SITE CONDITIONS											
2.1	Site Features	None			20.0%						
2.2	Landscaping / Improvements	Repair areas of deteriorated/damaged concrete sidewalk	25	\$19.24	20.0%	\$23.09	square foot		✓	\$577.20	Cracked and spalled sections of concrete sidewalks and patios were observed at the front side of the Subject building.
2.3	Pavement/ Parking	New asphalt overlay, repair, and restriping	39,025	\$1.04	20.0%	\$1.25	square foot		✓	\$48,703.20	Cracked and spalled sections of asphalt pavement were observed throughout the parking lot areas.
2.3	Pavement/ Parking	Replace asphalt curbs	850	\$4.16	20.0%	\$4.99	linear foot		✓	\$4,243.20	The extruded asphalt curbs were found to be cracked and heaved throughout the parking lot perimeter.
2.3	Pavement/ Parking	Replace asphalt speed bumps	4	\$250.00	20.0%	\$300.00	each		✓	\$1,200.00	The asphalt speed bumps provided in the rear parking lot were found to be severely worn with cracked and missing asphalt sections and faded paint.
2.3	Pavement/ Parking	Prepare, prime, and paint bollards	4	\$200.00	20.0%	\$240.00	each		✓	\$960.00	All bollards provided throughout the parking lot areas and around the Subject building were found to have peeling paint and rusted sections.
2.4	Amenities	Remove stored materials	1	\$250.00	20.0%	\$300.00	allowance		✓	\$300.00	Stored materials at the side of the garage building.
2.5	Utilities	None			20.0%						
3.0 STRUCTURE											
3.1	Substructure	Inspection and report by structural engineer ≤ 75,000 sf	1	\$7,500.00	20.0%	\$9,000.00	allowance	\$9,000.00			The open-web steel roof joists observed in the electrical rooms were found to have rusted sections. An assessment of all open-web steel roof joists to determine if this condition is isolated to these areas, or if it is prevalent throughout the Subject Building is recommended.
3.1	Substructure	Prepare, prime, and paint open-web steel joists	1	\$1,000.00	20.0%	\$1,200.00	allowance	\$1,200.00			The open-web steel roof joists observed in the electrical rooms were found to have rusted sections. We recommend all affected joists to be prepped, primed, and painted.
4.0 BUILDING ENVELOPE											
4.1	Roof	Clean roof drains of debris	1	\$350.00	20.0%	\$420.00	allowance	\$420.00			Several of the roof drains were found to be clogged with debris. This condition can lead to standing water on the roof membrane.
4.1	Roof	Prepare, prime, and paint natural gas piping	1	\$1,000.00	20.0%	\$1,200.00	allowance		✓	\$1,200.00	The natural gas piping provided at the roof was found to be rusted.
4.2	Facades	Repair cracked mortar	1	\$250.00	20.0%	\$300.00	allowance		✓	\$300.00	A step crack was observed at the brick veneer near the bottom of the north-most column labeled 2093.
4.2	Facades	Renew/recaulk expansion & control joints	500	\$1.07	20.0%	\$1.29	linear foot		✓	\$642.72	The sealant between the building and the concrete step at the north-most rear door appeared to be failing.
4.3	Windows and Doors	Prepare, prime, and paint rusted doors	1	\$500.00	20.0%	\$600.00	each		✓	\$600.00	The painted metal door accessing the Electric Utility Room at the east corner of the Subject building was found to be extremely rusted.

Table 1 - Immediate and Short Term Repairs

2071 Roosevelt Avenue
2071 Roosevelt Avenue
Springfield, Massachusetts
EBI Project # 1319000555

Site Survey Date: 10/22/2019
Report Date: 11/7/2019
Property Type: Office
Number of Buildings: 1
Number of Floors: 1

Building Area: 43,505
Number of Units: 1
Property Age: 49
Analysis Term: 10

SECTION NUMBER	SECTION NAME	RECOMMENDED WORK	QUANTITY	UNIT COST	Markup for Contingency, Permits, Overhead/Profit, General Conditions, etc.	UNIT COST (including Markup)	UNIT DESCRIPTION	ESTIMATED IMMEDIATE REPAIR COST	Short Term Repair?	ESTIMATED SHORT TERM REPAIR COST	COMMENTS OR ADDITIONAL DESCRIPTION
5.0 BUILDING INTERIORS											
5.1	Bsmt/Attic	None			20.0%						
5.2	Interior F & C	Replace ceramic floor tile flooring	20	\$6.08	20.0%	\$7.30	square foot		✓	\$146.02	Cracked, damaged, and missing mosaic ceramic floor tiles were observed in several of the rear vestibules.
6.0 ACCESSIBILITY											
6.1	Accessibility	Complete accessibility compliance upgrades	1	\$1,275.00	20.0%	\$1,530.00	allowance	\$1,530.00			As recommended in EBI's Limited Accessibility Checklist.
7.0 BUILDING SYSTEMS											
7.1	Plumbing	None			20.0%						
7.2	HVAC	Remove equipment no longer in use	1	\$2,500.00	20.0%	\$3,000.00	allowance	\$3,000.00			Several rooftop HVAC units, equipment, and components were abandoned in place on the Subject Property roof.
7.2	HVAC	Pipe condensate to roof drains	750	\$1.00	20.0%	\$1.20	linear foot	\$900.00			All rooftop-mounted HVAC units were found to dispense condensate directly onto the roof membrane. This can lead to advance degradation of the roof surface at these locations.
7.3	Electric	Perform IR survey	1	\$1,560.00	20.0%	\$1,872.00	allowance	\$1,872.00			EBI was not provided with any information regarding IR surveys performed at the Subject Property.
7.3	Electric	Remove stored materials	1	\$250.00	20.0%	\$300.00	allowance	\$300.00			Stored materials were observed in the electrical room housing Main 1
7.3	Electric	Prepare, prime, and paint transformer casing	1	\$500.00	20.0%	\$600.00	each		✓	\$600.00	One of the transformers located at the southeast corner of the Subject Property was found to have a rusted exterior casing.
7.4	F/L Safety	None			20.0%						
8.0 MUNICIPAL RESEARCH											
8.1	Municipal Information & Zoning	None			20.0%						
8.2	Building & Planning	None			20.0%						
8.3	Fire Department	None			20.0%						
9.0 NATURAL HAZARDS											
9.1.1	Seismic	None			20.0%						
9.1.2	Flood Zone	None			20.0%						
9.1.3	Wind Zone	None			20.0%						
9.2	Suspect Mold & Moisture	None			20.0%						
								DEFERRED MAINTENANCE:			
								IMMEDIATE		SHORT TERM	
								\$18,222		\$59,472	
								TOTAL:		\$77,694	

TABLE 2 - REPLACEMENT RESERVES

2071 Roosevelt Avenue

Site Survey Date: 10/22/2019

Building Area: 43,505

2071 Roosevelt Avenue

Report Date: 11/7/2019

Number of Units: 1

Springfield, Massachusetts

Property Type: Office

Property Age: 49

EBI Project # 1319000555

Number of Buildings: 1

Analysis Term: 10

Number of Floors: 1

SECTION NUMBER	SECTION NAME	RECOMMENDED WORK	AVERAGE EFFECTIVE USEFUL LIFE	EFFECTIVE AGE	REMAINING USEFUL LIFE	TOTAL QUANTITY OVER TERM	APPROXIMATE QUANTITY PER YEAR	UNIT COST (adjusted by location factor)	Markup for Contingency, Permits, Overhead/Profit, General Conditions, etc.	UNIT COST (Including Markup)	UNIT DESCRIPTION	ESTIMATED COST PER YEAR	Annual Costs										RECOMMENDED TOTAL OVER THE TERM
													2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
													YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	
2.0	SITE CONDITIONS																						
2.1	Site Features	None	-						20.0%														
2.2	Landscaping / Improvements	Routine concrete sidewalk repairs (linear foot allowance)	5		5	350	175	\$8.32	20.0%	\$9.98	linear foot	\$1,747					1,747					1,747	\$3,494
2.2	Landscaping / Improvements	Replace building-mounted light fixtures	20	10	10	30	30	\$51.74	20.0%	\$62.09	each	\$1,863										1,863	\$1,863
2.2	Landscaping / Improvements	Replace pole-mounted light fixture	20	10	10	1	1	\$70.77	20.0%	\$84.93	each	\$85										85	\$85
2.3	Pavement/ Parking	New asphalt overlay, repair, and restriping	25	23	2	39,025	39,025	\$1.04	20.0%	\$1.25	SF	\$48,703		48,703									\$48,703
2.3	Pavement/ Parking	Patching, crack sealing, sealing and striping of asphalt pavement	5	3	2	156,100	78,050	\$0.33	20.0%	\$0.40	SF	\$31,170		31,170				31,170					\$62,340
2.4	Amenities	None	-						20.0%														
2.5	Utilities	None	-						20.0%														
3.0	STRUCTURE																						
3.1	Substructure	None	-						20.0%														
3.2	Superstructure	None	-						20.0%														
4.0	BUILDING ENVELOPE																						
4.1	Roof	PMP Ongoing roof maintenance, psf	-			435,050	43,505	\$0.05	20.0%	\$0.06	per square foot	\$2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	2,610	\$26,103
4.1	Roof	TPO 60 mil roof replacement - low rise	20	18	2	43,505	43,505	\$4.93	20.0%	\$5.92	square foot	\$257,355		257,355									\$257,355
4.2	Facades	Facade painting and general repairs (limited painted surfaces)	10	7	3	1,500	1,500	\$0.30	20.0%	\$0.36	square foot	\$540			540								\$540
4.2	Facades	Renew/recaulk expansion & control joints	15	14	1	825	825	\$1.07	20.0%	\$1.29	linear foot	\$1,060	1,060										\$1,060
4.3	Windows and Doors	Renew/recaulk windows and doors	15	7	8	2,200	2,200	\$1.07	20.0%	\$1.29	linear foot	\$2,828								2,828			\$2,828
4.3	Windows and Doors	Replace single aluminum glass storefront doors	30	25	5	10	10	\$2,627.00	20.0%	\$3,152.40	each	\$31,524					31,524						\$31,524
4.3	Windows and Doors	Replace metal entry doors	30	25	5	10	10	\$346.50	20.0%	\$415.80	each	\$4,158					4,158						\$4,158
4.3	Windows and Doors	Replace fixed aluminum-framed insulated windows (medium)	35	15	20		150	\$161.98	20.0%	\$194.38	each	\$29,156											
5.0	BUILDING INTERIORS																						
5.1	Bsm/Attic	None	-						20.0%														
5.2	Interior F & C	Replace ceramic floor tile flooring	35	30	5	50	50	\$6.08	20.0%	\$7.30	square foot	\$365					365						\$365
6.0	ACCESSIBILITY																						
6.1	Accessibility	None	-						20.0%														
7.0	BUILDING SYSTEMS																						
7.1	Plumbing	Replace commercial electric water heater (30 - 50 gal.)	15	var		8	1	\$9,306.02	20.0%	\$11,167.23	each	\$11,167			11,167	11,167	11,167	11,167	11,167	11,167	11,167	11,167	\$89,338
7.2	HVAC	Replace rooftop package unit (3-ton) - 100% OA, Single Zone	20					\$14,436.76	20.0%	\$17,324.11	each												
7.3	Electric	Gas-Fired Emergency Generator (11.5 kW)	25	15	10	1	1	\$17,446.00	20.0%	\$20,935.20	each	\$20,935										20,935	\$20,935
7.3	Electric	None	-						20.0%														
7.3	Electric	Replace Main Circuit Breaker, 3 phase (400 Amp)	55	49	6	1	1	\$16,768.00	20.0%	\$20,121.60	each	\$20,122						20,122					\$20,122
7.4	F/L Safety	Fire extinguisher renewal inspections	-					\$52.00	20.0%	\$62.40	each												
7.4	F/L Safety	Replace fire alarm control panel with addressable w/o voice, up to 200 points type (medium size)	20	15	5		1	\$6,328.40	20.0%	\$7,594.08	each	\$7,594											
7.5	Elevators	None	-						20.0%														
8.0	MUNICIPAL RESEARCH																						
8.1	Municipal Information & Zoning	None	-						20.0%													70	

TABLE 2 - REPLACEMENT RESERVES

2071 Roosevelt Avenue
2071 Roosevelt Avenue
Springfield, Massachusetts
EBI Project # 1319000555

Site Survey Date: 10/22/2019
Report Date: 11/7/2019
Property Type: Office
Number of Buildings: 1
Number of Floors: 1

Building Area: 43,505
Number of Units: 1
Property Age: 49
Analysis Term: 10

SECTION NUMBER	SECTION NAME	RECOMMENDED WORK	AVERAGE EFFECTIVE USEFUL LIFE	EFFECTIVE AGE	REMAINING USEFUL LIFE	TOTAL QUANTITY OVER TERM	APPROXIMATE QUANTITY PER YEAR	UNIT COST (adjusted by location factor)	Markup for Contingency, Permits, Overhead/Profit, General Conditions, etc.	UNIT COST (Including Markup)	UNIT DESCRIPTION	ESTIMATED COST PER YEAR	Annual Costs										RECOMMENDED TOTAL OVER THE TERM
													2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
													YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	
8.2	Building & Planning	None	-						20.0%														
8.3	Fire Department	None	-						20.0%														

TABLE 2 - REPLACEMENT RESERVES

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													YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	
9.0	NATURAL HAZARDS																						
9.1.1	Seismic	None	-						20.0%														
9.1.2	Flood Zone	None	-						20.0%														
9.1.3	Wind Zone	None	-						20.0%														
9.2	Suspect Mold & Moisture	None	-						20.0%														
ANNUAL RECOMMENDATIONS, UNINFLATED													3,671	339,838	14,318	13,778	51,572	33,899	44,948	16,605	13,778	38,407	\$570,813
INFLATION FACTOR, IN PERCENTAGE 1.030													100.00%	103.00%	106.09%	109.27%	112.55%	115.93%	119.41%	122.99%	126.68%	130.48%	
ANNUAL RECOMMENDATIONS, INFLATED @ 3.00% AFTER YEAR ONE													\$3,671	\$350,033	\$15,189	\$15,055	\$58,044	\$39,298	\$53,670	\$20,423	\$17,453	\$50,113	\$622,950
Notes:													PRESENT VALUE OF RECOMMENDED TOTAL ANNUAL RESERVES PER SF PER YEAR										\$1.31
1.													INFLATED VALUE OF RECOMMENDED TOTAL ANNUAL RESERVES PER SF PER YEAR										\$1.43
Notes:													PRESENT VALUE OF RECOMMENDED TOTAL ANNUAL RESERVES PER UNIT PER YEAR										\$57,081
1.													INFLATED VALUE OF RECOMMENDED TOTAL ANNUAL RESERVES PER UNIT PER YEAR										\$62,295

1.0 PURPOSE & LIMITATIONS

The exclusive purpose of this *Acquisition Property Condition Report* (the *Report*) is to observe the general physical condition and maintenance status of the property, to suggest repair or maintenance items considered customary for the property to continue in its current operation compared to properties of similar age and condition, and to assist *Springfield Preparatory Charter School*, in its Due Diligence effort in evaluating the Property. Amendments to EBI's limitations as stated herein that may occur after issuance of the *Report* are considered to be included in this *Report*. EBI's liability to a purchaser wishing to use this *Report* is limited to the cost of the *Report*. By accepting draft and final Reports, *Springfield Preparatory Charter School* agrees to these terms and limitations.

The information reported was obtained through sources deemed reliable, a visual site survey of areas readily observable, easily accessible or made accessible by the property contact and interviews with owners, agents, occupants, or other appropriate persons involved with the Subject Property. Municipal information was obtained through file reviews of reasonably ascertainable standard government record sources, and interviews with the authorities having jurisdiction over the property. Findings, conclusions and recommendations included in the *Report* are based on our visual observations in the field, the municipal information reasonably obtained, information provided by the Client, and/or a review of readily available and supplied drawings and documents. No disassembly of systems or building components or physical or invasive testing was performed. EBI renders no opinion as to the property condition at un-surveyed and/or inaccessible portions of the Subject Property. EBI relies completely on the information provided during the site survey, or provided or obtained during the writing of the draft *Report*, whether written, graphic or verbal, provided by the property contact, owner or agent, or municipal source, or as shown on any documents reviewed or received from the property contact, owner or agent, or municipal source, and assumes that information to be true and correct. EBI assumes no responsibility for property information or prior reports withheld or not provided during preparation of the *Report* for any reason whatsoever. The observations in this *Report* are valid on the date of the survey. EBI uses the date of first occupancy to establish the Subject Property age.

The contents of the *Report* may not represent a detailed analysis by individual consultants of the Subject Property façades, roof, paving, mechanical, electric, plumbing, elevator, sprinkler, or fire and life safety systems depending on the scope of work selected by *Springfield Preparatory Charter School*. The extent of the physical survey for the production of this *Report* has been limited, by contract and agreed upon Scope of Work, (consistent with the guidelines of the ASTM E 2108 – 15 Scope of Work, as referenced below) to visual observations and a walk through of the property. Assumptions regarding the overall condition of the property have been developed based upon a survey of representative areas of the Subject Property. As such, no representation of *all* aspects of *all* areas or components is made.

Immediate Repairs as may be identified during the survey are typically limited to life, safety, health, building code violation or building or property stabilization issues observed at the Subject Property. Routine, normal or customary annual maintenance or preventative maintenance items are not reported or included in this *Report*.

Short Term Repairs as may be identified during the survey are typically repairs that are not life, safety, stabilization or code issues, but deferred maintenance or repairs necessary or of significant cost so to warrant them as a Short Term Repair, and/or that can't be completed within a short timeframe due to the magnitude of the issue, the scope of work or weather.

This assessment is based on the evaluator's opinion of the physical condition of the improvements and the estimated expected remaining useful life of those improvements, based on his observations in the field at the time of the survey, and the written or verbal information received. The conclusions presented are based on the evaluator's professional judgment. The actual performance of individual components or systems may vary from a reasonably expected standard and may be affected by circumstances that are not readily ascertainable or viewable, or that occur after the date of the survey.

Where quantities cannot be determined from information provided or physical takeoffs, lump sum estimates or allowances are used. The costs shown are based on professional judgment and the apparent or actual extent of the observed defect, including the cost to design, procure, construct and manage the repair or replacement. Where property-unique or specialty equipment is present, EBI relies solely on data regarding maintenance and/or replacement costs provided by the designated site contact or on-site individuals with first-hand knowledge of the specific equipment.

EBI provides Pre-Survey Questionnaires for completion by the designated site or property contact, as provided by *Springfield Preparatory Charter School* or their agent. The information requested in the questionnaire assists in our research of the Subject Property to obtain pertinent property data, discover existing physical deficiencies, chronic problems, the extent of repairs, if any, and their costs, and pending repairs and improvements. If the completed Pre-Survey Questionnaire is not returned as of this *Report*, this is a limiting factor in our analysis. If the questionnaire is returned at a later date showing a material difference from information provided in the *Report*, we will forward the questionnaire to you under separate cover. If no response is received, or no material difference is noted in the questionnaire, our *Report* will not be modified.

EBI may not have been provided with roof design or installation details, and may not have been provided with warranty information (see Section 3.4). EBI has relied on general industry performance of similar type roofs and general observations of the surface covering of the roof to determine if roof replacement is warranted during the analysis term. EBI is not responsible for roof failure that may occur earlier than estimated due to hidden conditions or defects that cannot be readily ascertainable by general observation.

EBI may not have been provided with façade reports, and cannot opine on costs to repair façades of buildings five stories or more without receipt of current façade reports (see Section 3.3). EBI has relied on general industry performance of similar façade systems and general observations of the surfaces of the façades to determine if repair or replacement is warranted during the analysis term. EBI is not responsible for façade failures that may occur earlier than estimated due to hidden conditions or defects that cannot be readily ascertainable by general observation.

If the municipality in which the Subject Property is located has governing ordinances requiring façade studies, and a copy is not provided to EBI, this is a limiting factor in our assessment and analysis. Prudent property management will have had façade reports completed on their high-rise property, and if a copy of the report is not provided to EBI, this too, is a limiting factor in our assessment and analysis.

The gathering of data and information for this *Report* was completed in general conformance with ASTM E 2136 – 15 Standard Guide for Property Condition Assessment: Property Condition Assessment Process, and with the scope of services approved by the client.

The survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession, and in accordance with generally accepted practices of other consultants currently practicing in the same locality under similar conditions. The level of care and skill exercised is also commensurate with the fees charged for EBI's services. No other representation, expressed or implied, and no warranty or guarantee is included or intended. The *Report* speaks only as of its date, in the absence of a specific written update of the *Report*, signed and delivered by EBI.

Limiting factors

Any additional information that becomes available after EBI's survey and draft submission concerning the Subject Property should be provided to EBI so that EBI's conclusions may be revised and modified, if necessary, at additional cost. This *Report* has been prepared in accordance with EBI's *Standard Conditions for Engagement*, which is an integral part of this *Report*.

DEVIATIONS FROM THE GUIDE

EBI includes an analysis of estimated Replacement Reserves in this *Report*. EBI uses an approximate threshold of \$1,000 in aggregate for reporting Short Term and Immediate Repair or Replacement Reserve items. Material life, safety, health, fire or building code violation or building or property stabilization issues observed at the Subject Property will be reported regardless of cost.

CONDITION

EBI uses terms describing conditions of the various site, building, and system components. The terms used are defined below. It should be observed that a term applied to an overall system does not preclude that a part or a section of the system or component may be in a different condition.

Excellent	The component or system is in new or like new condition and no deferred maintenance is recommended.
Good	The component or system is sound and performing its function, and/or scheduled maintenance can be accomplished through routine maintenance. It may show signs of normal aging or wear and tear and some remedial and routine maintenance or rehabilitation work may be necessary.
Fair	The component or system is performing at a capacity that is considered to be acceptably sufficient, but may be obsolete or is approaching the end of its expected useful life. The component or system may exhibit evidence of deferred maintenance, previous repairs, or workmanship not in compliance with commonly accepted standards. Repair or replacement may be recommended in the near-term of the loan to prevent further deterioration, restore it to good condition, prevent premature failure, or to prolong its expected useful life.
Poor	The component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its typical expected useful life, excessive deferred maintenance or state of disrepair. Present condition could contribute to, or cause, the deterioration of other adjoining elements or systems. Repair or replacement is recommended.

ABBREVIATIONS

EBI may use various abbreviations to describe various site, building or system components or legal descriptions. Not all abbreviations may be applicable to all *Reports*. The abbreviations most often utilized are defined below.

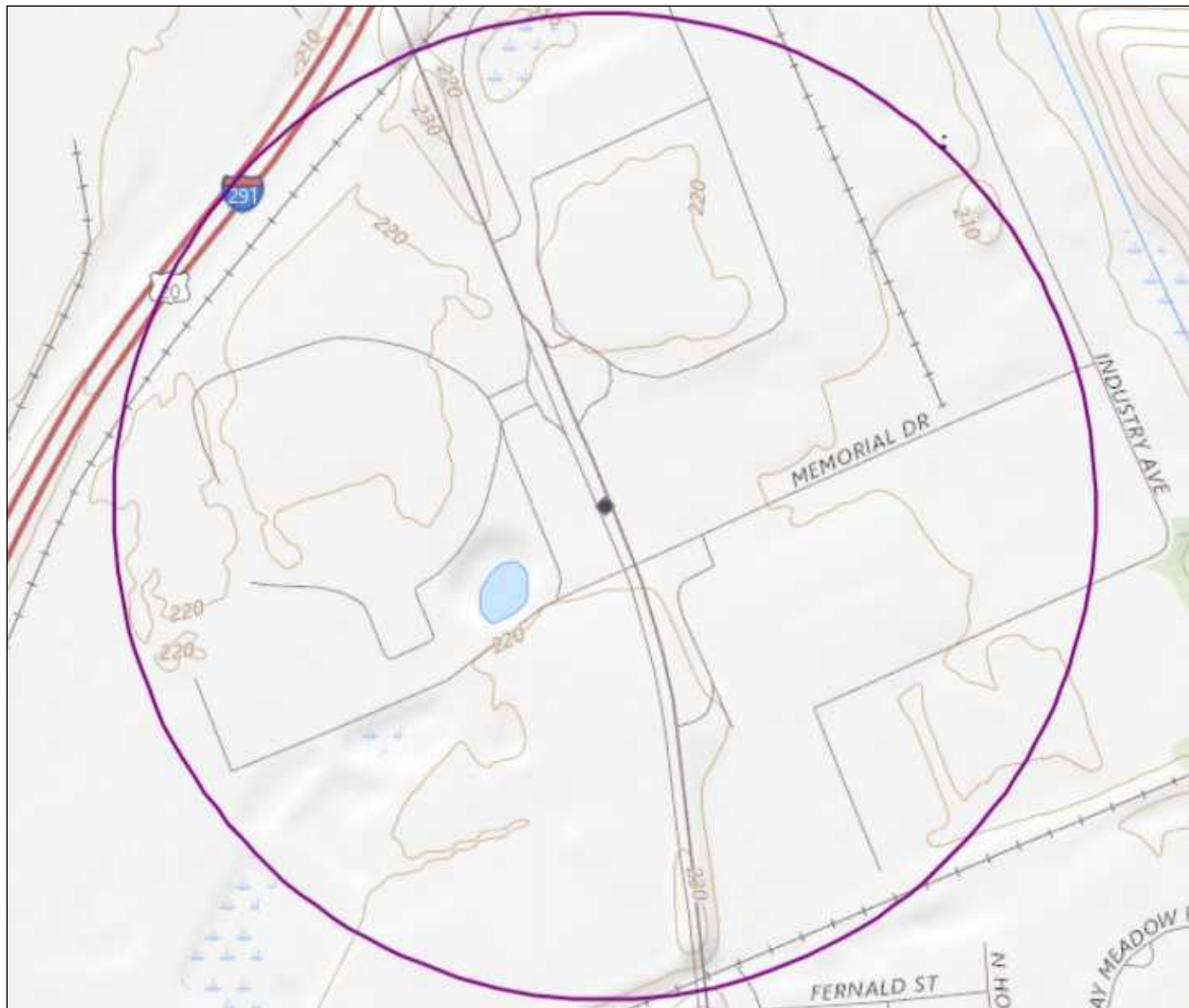
ACT	Acoustic Ceiling Tile	FOIA	Freedom Of Information Act
ABS	Acrylonitrile-Butadiene-Styrene	FRT	Fire retardant treated plywood
ADA	Americans with Disabilities Act	GFI	Ground Fault Interrupt (circuit)
AHU	Air Handling Unit	GWB	Gypsum Wall Board
APA	American Plywood Association	HCP	Handicapped Person
BTU	British Thermal Unit (a measurement of heat)	HID	High Intensity Discharge (lighting)
BTUH	British Thermal Units per Hour	HVAC	Heating, Ventilating and Air Conditioning
BUR	Built Up Roof	KW	Kilowatt
CFM	Cubic Feet per Minute	KVA	Kilovolt Ampere
CMU	Concrete Masonry Unit	MBH	Thousand BTUs per Hour
CPVC	Chlorinated Poly Vinyl Chloride	MDP	Main Distribution Panel
DWH	Domestic Water Heater	OSB	Oriented Strand Board
EIFS	Exterior Insulating Finishing System	PTAC	Packaged Terminal Air Conditioning (Unit)
EPDM	Ethylene Propylene Diene Monomer	PVC	Poly Vinyl Chloride
EUL	Expected Useful Life, Effective Useful Life	RTU	Roof Top Unit
FF&E	Furniture, Fixtures & Equipment	RUL	Remaining Useful Life
FCU	Fan Coil Unit	TPO	Thermoplastic polyolefin
HCP	Handicapped Person	SEER	Seasonal Energy Efficiency Rating
FEMA	Federal Emergency Management Agency	UBC	Uniform Building Code
FHA	Forced Hot Air	VAV	Variable Air Volume box
FHW	Forced Hot Water	VCT	Vinyl Composition Tile
FIRM	Flood Insurance Rate Map	VWC	Vinyl Wall Covering
FOIA	Freedom Of Information Act		

2.0 SITE

2.1 TOPOGRAPHY & DRAINAGE

DESCRIPTION

The Subject Property is located at an elevation of approximately 210 feet above mean sea level (msl). The topography of the Subject Property is relatively flat with minor slopes to accommodate site drainage and slopes gently to the east see Topographic Map below.



Topographic Map



OBSERVATIONS

No topography problems were reported or observed. Slopes pitching drainage away from the building appear to be adequate. Detriments or problems such as ground fractures, settlement areas, or evidence of erosion or chronically standing water were not observed. Slopes within parking areas appeared to be adequate for storm water control.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

2.2 LANDSCAPING & SITE IMPROVEMENTS

DESCRIPTION

The property has moderately dense, mature landscaping at all sides of the building and along the perimeter of the site. Landscaping includes deciduous and evergreen trees, shrubs, ground cover, and lawns.

An automatic irrigation system is present in the landscaped areas. Irrigation controllers are located in the electric utility room located at the east corner of the Subject Building.

Pylon signage is located along the front property line and at the main entrance along Memorial Drive. The pylon sign along the front property line is supported by two metal-clad posts and the sign adjacent to the main entrance is supported by a wood post.

Cast-in-place concrete sidewalks and patios are provided for pedestrian traffic along the front side of the Subject Building. The concrete sidewalks are assumed be approximately 4-inches in thickness and with steel reinforcement.

Lighting is provided by a pole-mounted fixture on a wood pole, approximately 20 feet in height along the northwest side of the property along with building-mounted flood lights provided along the perimeter of the building.

The Subject Property has chain link fencing at the northwest and northeast property lines provided by the neighboring properties. Painted metal fencing is provided along the northwest and southeast property lines.



Mature landscaping provided at all sides of the building.



Large pylon sign along front property line.



Typical concrete sidewalks.



Painted metal fencing along the front and southeast property lines.

OBSERVATIONS

The property landscaping appears to be in good condition and will be maintained at the property as part of operational expenses during the analysis term. The irrigation system and controller appears to be in good condition. Landscape maintenance is handled in-house as part of routine maintenance.

The pylon sign at the front property line is in good condition, and the smaller signage located at the main entrance is also in good condition. The metal and wood portions of the sign bases were in good condition and will be maintained at the property as part of operational expenses during the analysis term.

The sidewalks appear to be in good to fair condition with cracked and spalled sections of concrete sidewalks and patios were observed at the front side of the Subject building. Based on the observed conditions, Short Term Repairs are recommended for all cracked and spalled concrete sidewalks and patios. Additionally, based on its reported age, current condition, and expected useful life, Replacement Reserves are recommended for routine concrete sidewalk repairs during the analysis term.

The parking area lighting and exterior light fixtures appear to be in good condition. Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for exterior light fixture replacement during the analysis term.

The fencing along the northwest and northeast property lines is in good condition and will be maintained at the property as part of operational expenses during the analysis term.



RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Repair areas of deteriorated/damaged concrete sidewalk**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Repair concrete sidewalks**
- **Replace building-mounted light fixtures**

- Replacement of parking area poles and lighting

2.3 PAVEMENT AND PARKING

DESCRIPTION

According to a count in the field, the property is improved with parking areas for 223 cars, including four accessible spaces. See *Section 3.6 Americans with Disabilities Act Accessibility Guidelines (ADAAG)* for additional accessible parking information for people with physical disabilities.

The property has approximately 2,100 feet of drive lanes and roadways running through the site, and the parking is laid out along these drive lanes. The parking is configured in lots toward the front and rear of the building.

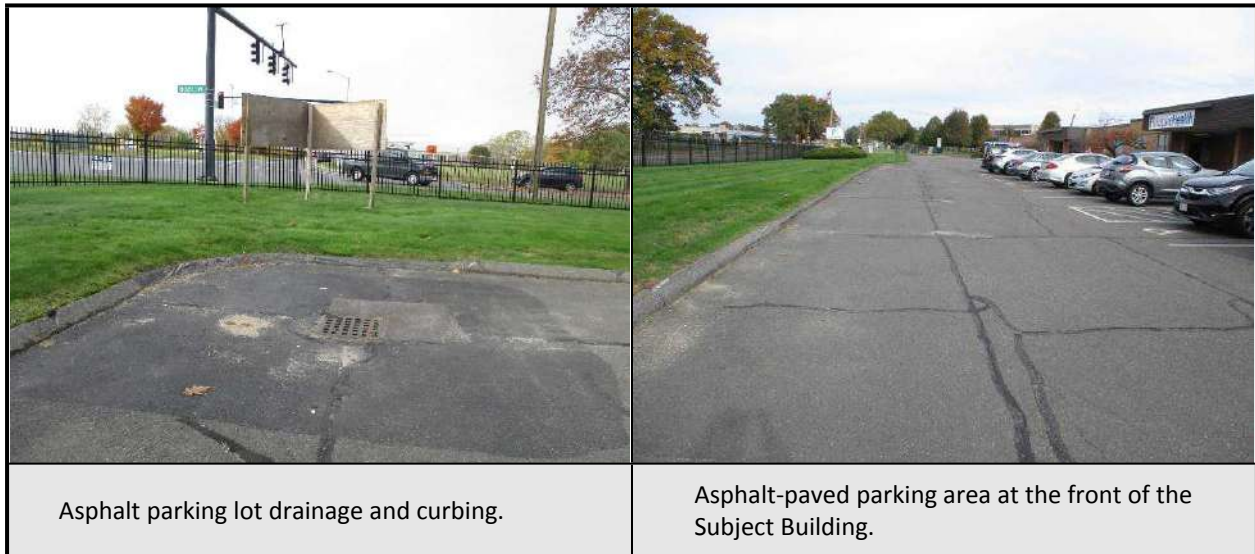
A single entry drive provides access to the Subject Property from the adjacent road frontage along Memorial Drive.

The parking areas have asphalt pavement and painted asphalt speed bumps.

The parking area has extruded asphalt curbing at the rear parking lot and granite block curbing along Roosevelt Avenue and Memorial Drive.

Protective bollards are provided at the rear building entrances.

	
Asphalt-paved parking area at the rear of the Subject Building.	Extruded asphalt curbing at the rear parking lot.



OBSERVATIONS

No problems were reported regarding the adequacy of the parking areas.

The asphalt paved areas are in fair condition. Cracking, settlement, alligating and patches in the pavement were noted at a number of locations. The parking area sealant and striping is in fair condition, with indications of heavy wear. Based on observed and reported conditions, Short Term Repairs are recommended for asphalt overlay for half of the parking lot areas with Replacement Reserves for the remaining asphalt during the analysis term.

The asphalt pavement seal coat and striping is in good to fair condition, with indications of average. Based on the observed condition of the parking and drive areas and the average effective useful life of pavement seal coat and striping, Replacement Reserves are recommended for asphalt pavement patching, crack sealing, sealing and striping of asphalt pavement.

The granite curbs are in good condition, however, the asphalt curbs are in poor condition. The extruded asphalt curbs were found to be cracked and heaved throughout the parking lot perimeter. Based on the observed conditions, Short Term Repairs are recommended to replace all damaged extruded asphalt curbing sections. The curbs will be maintained at the property as part of operational expenses during the analysis term.

The speedbumps were found to be in fair to poor condition. The asphalt speed bumps provided in the rear parking lot were found to be severely worn with cracked and missing asphalt sections and faded paint. Based on the observed conditions, Short Term Repairs are recommended to replace and repaint asphalt speed bumps.

All bollards provided throughout the parking lot areas and around the Subject building were found to have peeling paint and rusted sections. Based on the observed conditions, Short Term Repairs are recommended for preparing, priming, and painting of all bollards

	
Typical asphalt pavement condition.	Typical extruded asphalt curb condition.
	
The asphalt speed bumps were severely worn with cracked and missing asphalt sections and faded paint.	All bollards provided throughout the parking lot areas and around the Subject building were found to have peeling paint and rusted sections.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Asphalt overlay**
- **Replace asphalt curbs**
- **Replace asphalt speed bumps**
- **Prepare, prime, and paint bollards**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **New asphalt overlay**
- **Patching, crack sealing, sealing and striping of asphalt pavement**

2.4 SITE AMENITIES

DESCRIPTION

A maintenance garage building is located on the northeast side of the property and contains gardening and maintenance tools.



Maintenance garage building front and north side.



Maintenance garage building front and south side.



Maintenance garage building overhead doors.



Maintenance garage building interiors.

OBSERVATIONS

The Maintenance garage building located at the northeast corner of the Subject Property appears to be in good condition and will be maintained at the property as part of operational expenses during the analysis term.

Of note, stored materials were observed at the side of the garage building. Based on the observed conditions, Short Term Repairs are recommended to remove all stored materials.



RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Remove stored materials**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

2.5 UTILITIES

2.5.1 Water & Sewer

DESCRIPTION

The Springfield Water and Sewer Commission provides water and sewer service to the Subject Property site. The sewer is discharged through a holding tank, pump chamber, and force main, into the municipal lines beneath the abutting street.

2.5.2 Gas/Oil

DESCRIPTION

Columbia Gas of Massachusetts provides gas service to the Subject Property. No oil service is provided to the Subject Property.

2.5.3 Electrical

DESCRIPTION

Eversource provides electric service to the site. The service enters the property underground to two pad-mounted transformers at the southeast side of the Subject Property feeding secondary runs to the main switchgear. The utility reportedly owns and maintains the lines up to the transformers. The secondary feeds to the building are the responsibility of the Subject Property owner.

2.5.4 Storm Drainage

DESCRIPTION

The storm water flow from the site is directed by the site topography, resulting in sheet flow dispersal to curbs extending along the perimeter of parking area and the adjacent road frontages. The building's

internal roof drains are tied to catch basins in the Subject Property parking areas. The parking lots are configured with slopes toward curbs controlling storm water flow. The drainage system is the responsibility of the Subject Property owner.



The natural gas meters located on the south side of the Subject building.



The main electrical switchgear.

OBSERVATIONS

There were no reported or observed problems with the Subject Property water, sewer, gas, electric, or storm water drainage connections, systems, sizes, or capacities. The utilities appear to be configured and operated in a manner consistent with their intended use, adequate for the use type, and appear to be in good condition.

There are two pad-mounted electrical transformers on site. It is our understanding that they are owned and maintained by the utility company.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

3.0 STRUCTURE

3.1 GENERAL INFORMATION

GEOTECHNICAL REPORT

Design information was not obtained or provided to EBI for review.

3.2 SUBSTRUCTURE

DESCRIPTION

Based on EBI's visual survey and experience with similar structures, the Subject Property building is constructed with cast-in-place reinforced concrete foundations and spread footings of various sizes, supporting the load bearing exterior and interior walls and/or columns. Concrete slabs-on-grade of undetermined thickness are provided throughout the building.

The design and construction of the foundation footings is intended to properly spread out the building's vertical loads without exceeding the bearing capacity of the underlying soil. In cold climates, the footings are constructed below the prescribed frost level to minimize movement due to freeze-thaw conditions. Varying sizes of steel reinforcing bars typically exist in the foundation walls and footings for tensile and bending strength.

The concrete floor slabs are typically reinforced with welded wire mesh or steel reinforcement bars or fiber mesh for added flexural strength and to minimize cracking. Floor slabs reinforced by post-tension tendons are utilized in some areas to minimize cracking caused by expansive soils. The concrete slabs are generally constructed over a compacted gravel or sand base and vapor barrier to aid in preventing water migration from the bearing soil to the slab. In cold climates, the slabs and/or foundation walls are often insulated around the perimeter of the building.



Typical slab section.



Interior column and slab obscured by carpet.

OBSERVATIONS

The majority of the Subject Property substructure was not visible due to the surrounding grade. The substructure appears to be sound and in good condition. No indications of problems with the substructure were reported or observed. Unless visible, EBI's assessment of substructure condition is primarily based on obvious irregularities with the superstructures (including limited observations of exterior and interior construction and finishes) and the condition of the slab-on-grade when present. The condition of substructure hidden construction elements, or defects not readily observable, cannot be opined on, and is beyond the standard scope of work for this project.

Based on limited observations, the substructures appear to be in good overall condition and are performing as designed. No obvious indications of irregularities, including differential settlement, sloped floors, significant cracks, out of plumb building elevations, or other perceived movement, were reported or observed.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

3.3 SUPERSTRUCTURE

DESCRIPTION

Primary load-bearing members consist of steel columns and steel girders supporting 14" deep open-web steel roof joists spaced 4 feet on center. Typical column spacing is approximately 24 lineal feet on center. Typical floor to floor height is approximately 12 feet. The roof structure consists of lightweight concrete on steel decking, supported by open-web steel roof joists. Lateral resistance is provided by a combination of floor and roof diaphragms.



Typical column.



Corrugated metal roof decking and open-web steel joist.

OBSERVATIONS

The superstructures are partially obscured from view by interior and exterior finishes. Unless visible, EBI's assessment of superstructure condition is predominantly based on obvious irregularities with exterior and interior construction and finishes. Concealed and/or obscured structural systems or connections were not viewed. The condition of the hidden structural defects, if any, or defects not readily observable from the viewing areas mentioned above, cannot be opined on, and is beyond the standard scope of work for this project.

Based on limited observations, the superstructures appear to be in good to fair overall condition and appear to be performing as designed. No obvious indications of irregularities, including significant floor and/or roof deflections, significant cracks, noticeably out of plumb building elevations, or other perceived structural defects, were reported or observed. However, the open-web steel roof joists observed in the electrical rooms were found to have rusted sections. Based on the observed conditions, Immediate Repairs are recommended for an assessment of all open-web steel roof joists to determine if this condition is isolated to these areas, or if it is prevalent throughout the Subject Building. Additionally, Immediate Repairs are recommended for all affected joists to be prepped, primed, and painted.

	
Insert description	Insert description

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **Investigation and report by structural engineer**
- **Prepare, prime, and paint rusted open-web steel joists**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

4.0 BUILDING ENVELOPE

4.1 ROOFING

DESCRIPTION

During the site survey, the roof was accessed with a portable ladder from grade and representative areas of the roof were observed. EBI was not provided with roof design or installation details. Reportedly, no warranty is in place.

The Subject Property has a low-slope, mechanically-fastened, single-ply, TPO-membrane roof.

The low-slope roof membrane terminates at vertical interfaces (equipment platforms) with metal flashings. Roof penetrations are flashed with TPO-membrane boots.

Roof slope directs rainwater to internal roof drains and leaders.

	
TPO roof system.	Typical roof drain condition.
	
Typical skylight condition.	Metal flashing around roof perimeter.

OBSERVATIONS

In estimating the condition and effective useful life of roofs, *EBI* has relied on general industry performance of similar type roofs and general observations of the surface covering to determine if replacement is warranted during the analysis term.

The TPO roof appears to be in fair condition. The roof is a replacement and approximately 25 years old. Roofs of this type typically have an average effective useful life of approximately 15 to 20 years, depending on the property's location, material type and quality, quality of installation, roof maintenance and exposure, amount of roof traffic, and regional climatic conditions. Severe ponding was observed throughout the roof area. Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for roof replacement during the analysis term.

The slope and drainage design of the building roof appeared to be generally inadequate with pervasive ponding noted at throughout the roof area. Based on observed conditions, we recommend that roof slopes are modified to provide positive drainage when the building roof is replaced.

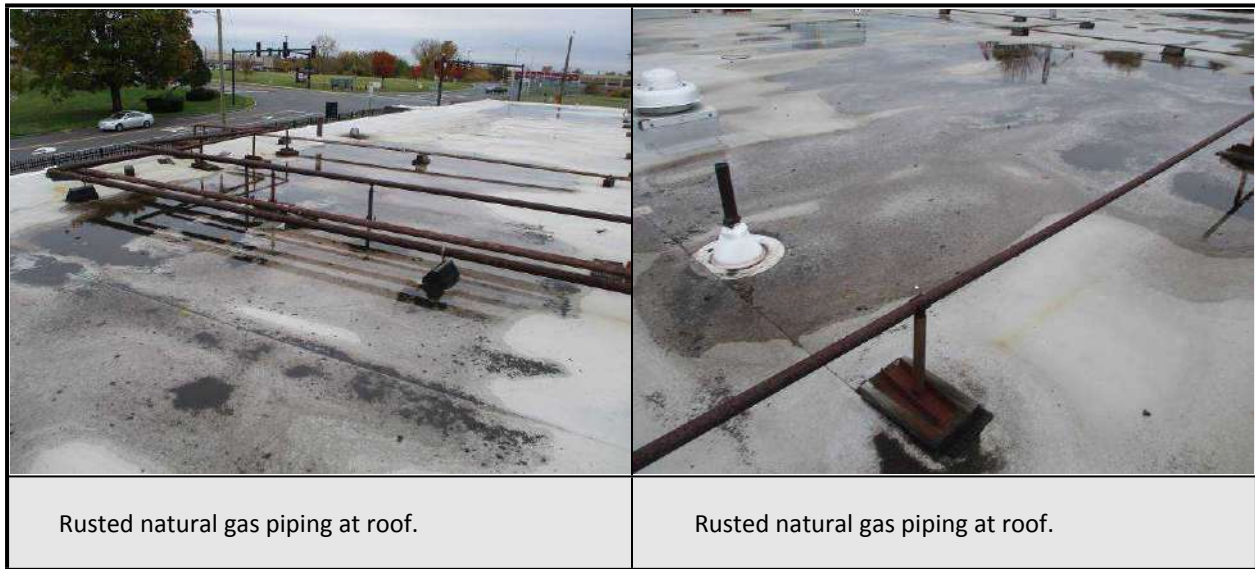
Additionally, several of the roof drains were found to be clogged with debris. This condition can lead to standing water on the roof membrane. Based on the observed conditions, Immediate Repairs are recommended to clean the roof drains of all debris.

Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for ongoing roof maintenance during the analysis term.

The dome-type skylights were observed to be in good poor condition and will be maintained at the property as part of operational expenses during the analysis term.

The natural gas piping provided at the roof was found to be fair condition. Several areas of natural gas piping were rusted. Based on the observed conditions, Short Term Repairs are recommended to prepare, prime, and paint all natural gas piping at the roof.





RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **Clean roof drains of debris**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Prepare, prime, and paint natural gas piping**

Please see Table 2 – Replacement Reserves for the recommended items listed below:

- **TPO roof replacement**
- **Ongoing roof repairs & maintenance, after roof replacement**

4.2 FAÇADES

DESCRIPTION

Primary exterior materials consist of tan brick.

The façades have soldier-coursed, brick trim around the windows and entrances, and punched and storefront windows.

Building entrances are set back from the building line and are provided with cantilevered roof sections. These areas are provided with exterior-grade tiled soffit systems on four-foot-by-four-foot grids with recessed exterior lighting. Brown painted horizontal wood siding is provided at the building entrance rooflines.

	
Front side of the Subject building.	Typical side condition of the Subject building.
	
Rear side of the Subject building.	Typical building entrance.

OBSERVATIONS

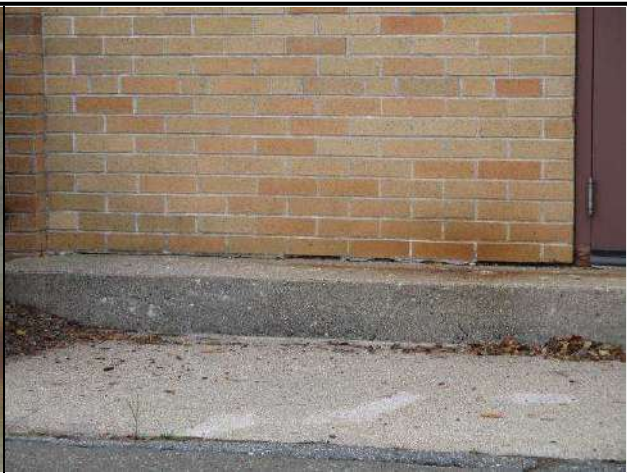
The estimate of the façade condition is based on limited observation of areas of the exterior walls and the age of the improvements. Façade observations are limited primarily to exterior finishes of the lower areas of the façades. This does not represent a comprehensive or in-depth façade survey. Therefore, observations in this *Report* cannot be the sole source of façade analysis. Concealed and/or obscured façade material attachment systems were not viewed. The condition of the facades' hidden defects, if any, or defects not readily observable from the viewing areas mentioned above, cannot be opined on, and is beyond the standard scope of work for this assessment.

The observed areas of the painted wood siding appear to be in good overall condition. Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for exterior painting during the analysis term.

The observed areas of the veneer appear to be in good overall condition. However, a step crack was observed at the brick veneer near the bottom of the north-most column labeled 2093. Based on the

observed conditions, Short Term Repairs are recommended for repairs to the cracked mortar at this location. Based on the age and the overall condition of the brick masonry, it is recommended that a dedicated repair program be instituted for anticipated degradation of the mortar joints and overall exterior wall performance. Walls should be routinely checked for fractured, spalling or missing mortar joints, and cleaning or tuck pointing of the brick and joints should be performed where necessary as part of routine maintenance.

The observed sealants along the control joints appear to be in fair condition overall, with weathered and cracked sealant noted in several locations around the building. Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for sealant and control joint renewal during the analysis term. Additionally, the sealant between the building and the concrete step at the north-most rear door appeared to be failing. Based on the observed conditions, Short Term Repairs are recommended to replace the sealant at this location.

	
Step crack in mortar at column labeled 2093.	The sealant between the building and the concrete step at the north-most rear door.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Repair cracked mortar**
- **Renew/recaulk expansion and control joints**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Renew/recaulk expansion and control joints**
- **Exterior painting (including trim painting)**

4.3 WINDOWS AND DOORS

DESCRIPTION

Aluminum-framed fixed, punched windows with a combination of single-pane glass and insulated glazing are located along all elevations of the building. Tenant entries at the front and rear sides of the Subject building have glazed storefront entry systems.

The exterior doors consist of average-quality, commercial-grade, single-leaf, aluminum and glass doors and insulated metal doors accessing the tenant spaces at the building. Secondary entrances and service doors are single-leaf insulated metal units set in metal frames. Service and access doors are insulated metal. The doors are furnished with standard hardware.

Three overhead sectional garage doors are provided at the garage structure at the northeast corner of the Subject Property.



Typical fixed, punched, aluminum-framed window.



Typical storefront system at tenant entrances.



Typical aluminum and glass door.



Typical overhead sectional garage door.

OBSERVATIONS

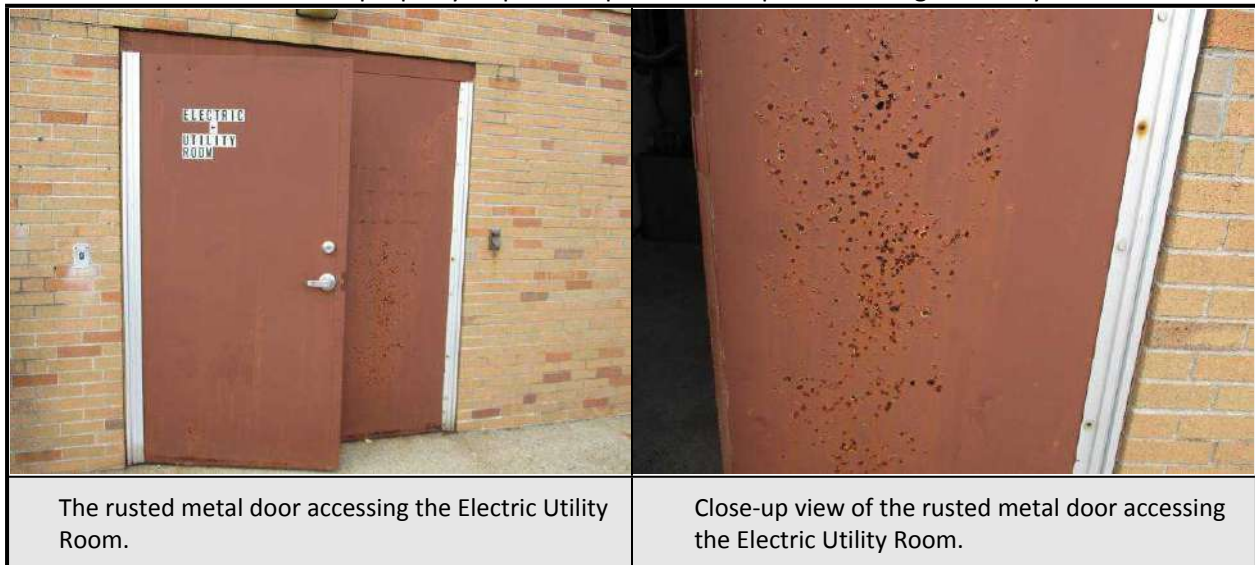
Aside from normal wear, the observed doors appear to be in good to fair condition. Door replacement is not anticipated during analysis term. The painted metal door accessing the Electric Utility Room at the east corner of the Subject building was found to be extremely rusted. Based on the observed conditions, Short Term Repairs are recommended for the door to be prepped, primed, and painted.

Based on their observed condition, reported age and average effective useful life, Replacement Reserves are recommended for their replacement during the analysis term.

Aside from normal wear, the observed private garage doors appear to be in good condition and will be maintained at the property as part of operational expenses during the analysis term. Based on their observed condition, reported age and average effective useful life, Replacement Reserves are recommended for renewal of the sealants around the windows and doors during the analysis term.

The observed windows appeared to be weather tight and in good overall condition. Based on the reported age, current condition, and expected useful life, Replacement Reserves are recommended for window replacement during the analysis term.

The observed storefront windows systems appeared to be weather tight and in good overall condition and will be maintained at the property as part of operational expenses during the analysis term.



RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Prepare, prime, and paint rusted doors**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Door replacement**
- **Window replacement**
- **Renewal of the sealants around the windows and doors**

5.0 BUILDING INTERIORS

5.1 BASEMENTS, ATTICS, & PENTHOUSES

DESCRIPTION

The Subject Property has no basement, attic or penthouse spaces.

OBSERVATIONS

Not applicable.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

5.2 INTERIOR FINISHES & COMPONENTS

DESCRIPTION

The interior areas into which entry was made possible by the site contact are finished with average quality materials consistent with similar property use types. The finishes generally consist of the materials listed in the table below.

TYPICAL INTERIOR FINISHES			
AREA OR ROOM	FLOOR	WALLS	CEILING
Lobby/vestibule areas	Ceramic tile	Wallpapered GWB	Suspended acoustic tile
Offices	Carpet	Wallpapered GWB	Suspended acoustic tile
Lunch Room/Kitchenette	Vinyl tile	Painted GWB, wallpapered GWB	Suspended acoustic tile
Restrooms	Ceramic mosaic tile, vinyl tile	Ceramic tile, painted GWB	Suspended acoustic tile

There are no interior common areas at the Subject Property.

Office space interiors typically include commercial quality carpeting, wallpaper wall covering, and suspended acoustical tile ceiling on a concealed two foot by two foot grid. Doors have a painted finish.

The building contains a tenant maintained kitchen with standard equipment typical to the office tenants of this size. Equipment includes an electric range, refrigerator, standard dishwasher and a microwave.

	
Lobby finishes.	Typical office finishes.
	
Kitchenette finishes.	Typical restroom finishes.

OBSERVATIONS

A representative sampling of the tenant spaces were surveyed and comments regarding their condition are listed below.

TENANT UNITS OBSERVED		
ADDRESS	TENANT	COMMENTS
2095	None.	Vacant. Good condition.

The tenant spaces are in good condition. Discussions with the owner indicate that, according to the tenants' lease terms, the tenants are responsible for interior repairs, refurbishment, and renovations. No other action is required at this time, and new tenant refurbishment is not calculated in this Report.

The restroom finishes were observed to be in good condition and will be maintained at the property as part of operational expenses during the analysis term.

The entrance lobby and vestibule areas were found to be in generally good condition. However, cracked, damaged, and missing mosaic ceramic floor tiles were observed in several of the rear vestibules. Based on the observed conditions, Short Term Repairs are recommended to replace all cracked, damaged, or missing ceramic floor tiles.

	
Cracked, damaged, and missing mosaic ceramic floor tiles in several of the rear vestibules.	Cracked, damaged, and missing mosaic ceramic floor tiles in several of the rear vestibules.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Replace ceramic tile flooring**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

6.0 ACCESSIBILITY

DESCRIPTION

The *Americans with Disabilities Act (ADA)*, Title III, 28 CFR Part 36, enacted July 26, 1990 and effective January 26, 1992, governs public accommodation and commercial properties. Title III of the ADA divides facilities into two basic categories: places of *public accommodation* and *commercial facilities*, with different obligations for each facility type. The provisions of Title III provide that persons with disabilities should have accommodations and access to public facilities that are equal, or similar, to those available to the general public. Assessment of any other Titles, or their provisions of the ADA, including those that govern employer and/or tenant responsibilities, is specifically excluded from this Scope of Work and Report. Since tenants and employers at properties are usually responsible for making their leased areas ADAAG-compliant, assessment for ADAAG compliance in these areas was not completed.

Regardless of a property's age, these areas and facilities must be maintained and operated to comply with the *Americans with Disabilities Act Accessibility Guidelines (ADAAG)*. Facilities initially occupied after the effective date are required to fully comply with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance as Title III calls for owners of buildings occupied prior to the effective date to expend "reasonable" sums, and make "reasonable efforts", to make "practicable" or "readily achievable" modifications to remove barriers, unless said modification would create an undue financial burden on the property or is structurally infeasible. When renovating buildings occupied prior to the effective date, the area renovated, and the path of travel accessing the renovated area, must comply with the ADAAG. As an alternative, a *reasonable accommodation* pertaining to the deficiency must be made. The definitions of "reasonable," "reasonable efforts," "practicable," and "readily achievable," are site dependent and vary based on the owner's financial status.

Due to the unique nature of each property, the extent of analysis required, and the many variables of compliance with the ADAAG guidelines, the evaluation of costs for full ADAAG compliance is beyond the scope of this Report. A separate *ADAAG Compliance Audit* may be ordered and may reveal additional aspects of the property that are not in compliance.

For the purposes of this Report the survey is limited to visual observations of only a representative sample of areas readily observable or easily accessible, and to those areas set forth in EBI's *Modified Accessibility Compliance Checklist and Costs* included in Appendix C of this Report. The survey is limited to identifying potential routine maintenance or renovation actions that can increase accessibility over time and may or may not, achieve full ADAAG compliance. Places of *public accommodation* at the Subject Property were visually observed for general compliance with the major requirements of the ADA, taking into consideration the current use of the property, its age and renovation history. No actual measurements were taken to verify compliance.

If you have additional questions concerning the ADA and the ADAAG, calls can be made to the *United States Department of Justice (USDOJ) ADA Hotline* at (800) 514-0301 followed by touching "7" on the touch tone keypad. Additionally, information is available online at the *USDOJ ADA website* at <http://www.usdoj.gov/crt/ada/adastd94.pdf> or <http://www.access-board.gov/adaag/html/adaag.htm>.

OBSERVATIONS

Portions of the Subject Property fall into the *public accommodation* category.

The following *areas of public accommodation* are present at the Subject Property:

- Parking area
- Lobby area
- Public restrooms

Therefore, the Americans with Disabilities Act (ADA), Title III, 28 CFR Part 36, is applicable.

A visual review of the property, in conformance with *EBI's Modified Accessibility Compliance Checklist and Costs*, concluded that the Subject Property is not in general conformance with the ADAAG. Modifications to correct observed ADAAG deficiencies for the Subject Property and their associated estimated costs are detailed in *EBI's Modified Accessibility Compliance Checklist and Costs* immediately following.

The following items or deficiencies were observed at the Subject Property that do not appear to be in compliance with ADA and its stated requirements:

- The total number of standard accessible spaces is not considered to be in compliance with ADA requirements.
- The total number of van-accessible spaces is not considered to be in compliance with ADA requirements.
- Select accessible parking spaces do not have vertically-mounted signs.

Modifications to correct observed ADA deficiencies for the Subject Property and their associated estimated cost are beyond the scope of this assessment. The client should engage an accessibility specialist to determine what modifications, if necessary, are required to bring the property into compliance with ADA guidelines.

	
Select accessible parking spaces do not have vertically-mounted signs	The total number of standard accessible spaces is not considered to be in compliance with ADA requirements.

RECOMMENDATIONS

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Complete ADA compliance upgrades**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

LIMITED ACCESSIBILITY COMPLIANCE CHECKLIST AND COSTS

Facility Name: 2071 Roosevelt Avenue
Facility Address: 2071 Roosevelt Avenue
Springfield, Massachusetts
Property Age: 49 Years

Legend:
ADA: Americans with Disabilities Design Standards
FHA: Fair Housing Accessibility Design Manual

1.0 ADA - Parking and Exterior Accessible Routes		Yes	No	Not Applicable	Referenced Standard(s)	Description/Location of Deficiency	Recommended Corrective Action	Quantity	Unit Price	Units	Total Cost
1.1	Does there appear to be sufficient handicapped-accessible parking spaces with respect to the total number of reported spaces?		✓		ADA 208.2	Only four handicapped-accessible parking spaces were observed. For the provided number of parking spaces, six handicapped-accessible parking spaces are required and one van-accessible space is required for a building constructed before March 15, 2012.	Provide accessible parking spaces for ADA compliance.	2	\$200	each	\$400
1.2	At least on in every six accessible spaces is required required to be van-accessible.		✓		ADA 208.2.4	No van-accessible spaces were observed.	Provide van-accessible parking spaces adjacent to areas of public accommodation.	1	\$200	each	\$200
1.3	Are accessible car parking spaces 96 inches wide minimum? (Measure from the centerline of the markings.) (NOTE: In Florida accessible spaces must be 144 inches wide minimum)	✓			ADA 502.2						
1.4	Are accessible van parking spaces 132 inches wide minimum? (Exception: Van parking spaces can be 96 inches wide minimum when the access aisle is 96 inches wide minimum.) (Measure from the centerline of the markings.)			✓	ADA 502.2						
1.5	Are there access aisles adjacent to each accessible space, and if present, are they at least 60 inches wide? (Two spaces may share an access aisle that is between them. Exception: Angled van accessible parking spaces must have the access aisle on the passenger side of the accessible space.)	✓			ADA 502.3						
1.6	Do the access aisles adjoin an accessible route? (NOTE: Compliant curb ramps present at head of access aisle, or access aisles flush with sidewalks.)	✓			ADA 502.3						
1.7	Do the existing ADA spaces appear to be marked with the International Symbol of Accessibility on a vertically-mounted sign?		✓		ADA 502.6	The handicapped-accessible parking spaces are not provided with vertically-mounted signs.	Provide compliant signage at accessible parking spaces.	7	\$150	each	\$1,050
1.8	Do the existing van-accessible spaces appear to be marked with a sign reading "Van-Accessible"?		✓		ADA 502.6	No van-accessible spaces were observed.	Provide 'van-accessible' placard on vertical signage at van-accessible parking spaces.	1	\$25	each	\$25
1.9	Is the bottom edge of the ISA sign at least 60 inches above the finish grade of the parking space? (NOTE: "VAN ACCESSIBLE" sign can be lower than 60 inches.)			✓	ADA 502.6						
1.10	Are the clear widths of the walking surface of the accessible routes 36 inches minimum?	✓			ADA 403.5.1						
1.11	Are accessible routes free from barriers, such as stairs, steps, or vertical changes greater than 1/4"? (NOTE: a vertical change up to 1/2" is allowable if beveled with a slope no steeper than 1:2. This does not include ramps.)	✓			ADA 303.2, 303.3						
1.12	Do all protruding objects located between 27 inches above the floor and 80 inches above the floor protrude no greater than 4 inches into the circulation path if they do not have protection via a guardrail or other barrier with a bottom edge 27 inches above finish grade?	✓			ADA 307.2						
1.113	Is the clear opening width of the accessible entrance door at least 32", between the face of the door and the stop, when door is open 90 degrees?	✓			ADA 404.2.3						
1.14	Is the door hardware on exterior access doors to areas of public accommodation operable with one hand and does not require tight grasping, pinching, or twisting of the wrist?	✓			ADA 402.7						
1.15	At accessible entrances, is the door threshold height less than 1/4 inch high for vertical thresholds, or less than 1/2 inch high with a beveled slope of < 1:2?	✓			ADA 404.2, 303.2						
1.16	Does the accessible route feature a stable, firm, and slip-resistant walking surface?	✓			ADA 502.4						
1.17	If not all entrances are accessible, is there a sign at the accessible entrance with the International Symbol of Accessibility?	✓			ADA 216.6						
1.18	Do all ramps on accessible pathways serving areas of public accommodation (including curb ramps) appear to have a slope not exceeding 1:12?	✓			ADA 405.2						
1.19	Do depressed curb ramps on accessible pathways serving areas of public accommodation have flared sides with a slope not exceeding 1:10?	✓			ADA 406.3						
1.20	If a ramp has a rise higher than 6", are there handrails on both sides?			✓	ADA 405.8						
1.21	Does the width between railings for ramps on accessible pathways serving areas of public accommodation appear to be at least 36 inches?			✓	ADA 405.5						
1.22	Is there a level landing at least 60" x 60" at the top and bottom of each ramp run?			✓	ADA 405.7						

LIMITED ACCESSIBILITY COMPLIANCE CHECKLIST AND COSTS

Facility Name: 2071 Roosevelt Avenue
Facility Address: 2071 Roosevelt Avenue
Springfield, Massachusetts
Property Age: 49 Years

Legend:
ADA: Americans with Disabilities Design Standards
FHA: Fair Housing Accessibility Design Manual

2.0 ADA - Interior Accessible Routes	Yes	No	Not Applicable	Referenced Standard(s)	Description/Location of Deficiency	Recommended Corrective Action	Quantity	Unit Price	Units	Total Cost
2.1 Are all accessible routes at least 36" wide (32" wide through doorways)?	✓			ADA 403.5.1						
2.2 Do floor surfaces appear to be firm, stable, and slip resistant?	✓			ADA 404.2, 302.1						
2.3 If carpeting is present, is it securely fastened, with a maximum pile height of 1/2 inch?	✓			ADA 302.2						
2.4 Do all objects on circulation paths through public areas, e.g. fire extinguishers, drinking fountains, signs, etc., protrude no more than 4" into the path, or if object protrudes more than 4", is the bottom leading edge at 27 inches or lower above the floor, or 80 inches or higher above the floor?	✓			ADA 307.4						
2.5 Is the door hardware on interior doors serving areas of public accommodation operable with one hand and does not require tight grasping, pinching, or twisting of the wrist?	✓			ADA 404.2.7						
2.6 Are the door threshold heights less than 1/4 inch high for vertical thresholds, or less than 1/2 inch high with a beveled slope of <1:2?	✓			ADA 404.2, 303.2						
2.7 For elevators in areas of public accommodation only: Is the interior at least 54" deep by at least 36" wide?			✓	ADA 407.4.1						
2.8 For elevators in areas of public accommodation only: Are in-car controls no less than 15" and no greater than 48" above the floor, or up to 54 inches above the floor for a parallel approach?			✓	ADA 408.4.6, 407.6.1						
2.9 For elevators in areas of public accommodation only: Do elevator control buttons appear to be designated by both Braille and by raised standard alphabet characters (mounted to the left of the button)?			✓	ADA 407.4.1.1, 703.2						
2.10 For elevators in areas of public accommodation only: Are there audible signals which sound as the car passes or is about to stop at a floor?			✓	ADA 407.4.8						
2.11 For elevators in areas of public accommodation only: Is there a two-way emergency communication system within the elevator cab that is push-button activated, and does it provide visual indication that a rescue is on the way?			✓	ADA 407.4.9, 308						
3.0 ADA - Public Restrooms	Yes	No	Not Applicable	Referenced Standard(s)	Description/Location of Deficiency	Recommended Corrective Action	Quantity	Unit Price	Units	Total Cost
3.1 Is the door hardware on accessible restroom doors operable with one hand and does not require tight grasping, pinching, or twisting of the wrist?	✓			ADA 404.2.7						
3.2 Do accessible restroom entry doors have a 32" minimum clear width when the door is opened 90 degrees?	✓			ADA 404.2.3						
3.3 Do public restrooms feature an unobstructed wheelchair turnaround (60" turning diameter)?	✓			ADA 306.2.1						
3.4 Floor-mounted toilets: Do public restrooms feature at least one toilet compartment or area a minimum of 60"-wide and 59"-deep?	✓			ADA 604.8						
3.5 Wall-mounted toilets: Do public restrooms feature at least one toilet compartment or area a minimum of 60"-wide and 56"-deep?			✓	ADA 604.8						
3.6 Is the centerline of the toilet 16 inches minimum to 18 inches maximum from the side wall or partition?	✓			ADA 604.2						
3.7 Is the height of the toilet seat 17 inches minimum to 19 inches maximum above finish floor?	✓			ADA 604.4						
3.8 Do sink/toilet handles appear to be operable with one hand without grasping, pinching or twisting?	✓			ADA 606.4						
3.9 Do the sinks appear to be provided with clearance for a wheelchair to roll under (minimum 27" clearance)?	✓			ADA 606.2, 606.3						
3.10 Is the height of the lavatory rim or counter 34 high maximum above the finished floor?	✓			ADA 606.3						
3.11 Are water supply, drain, and primer pipes, as well as sharp or abrasive surfaces under lavatories insulated or otherwise shielded to protect against contact?	✓			ADEA 606.5						
3.12 Do soap dispensers, towel dispensers and other accessories that are not over an obstruction (i.e., a sink) mounted no higher than 48" above the floor?	✓			ADA 308.2						
3.13 Are mirrors that are located above lavatories or countertops installed with the bottom edge of the reflecting surface 40 inches maximum above finish floor?	✓			ADA 603.3						
3.14 Are compliant toilet grab bars provided in toilet rooms (minimum 36" rear and 42" side)?	✓			ADA 604.5						
Total Estimated Cost of Handicapped-Accessibility Compliance Recommendations:										\$1,275

7.0 BUILDING SYSTEMS

7.1 PLUMBING

DESCRIPTION

Domestic water service to the building consists of a 2-inch diameter water line which along the south wall. Domestic water pressure, at the Subject Property, is provided by the incoming municipal service.

The observed supply domestic water piping is copper. Sanitary sewer drain and vent lines were observed as hub and spigot cast iron piping.

Backflow devices are furnished for the potable water systems at the site. The backflow preventer is located in the mechanical room adjacent to the water service entrance. Backflow typically occurs when contaminated liquids mix with potable (drinking) water. This may occur due to a cross-connection between the public water system and a consumer's plumbing system. The two most common types of backflow are backpressure and back-siphoning. Back-siphoning is commonly caused by main breaks or other conditions that create a drop in the water distribution system pressure, allowing contaminants to enter the water supply and affecting the customers' potable water. Backpressure occurs when elevation or pumping pressure forces contaminants into the municipal water distribution system, thus overcoming the system water pressure. The reversal of contaminated liquids can unknowingly infuse pollutants, pesticides, and other harmful agents into the drinking water. Contaminates can come from sources such as a garden hose, a lawn irrigation system, industry, or small businesses such as dry cleaners, photo labs, funeral homes, restaurants or the local grocer, to name a few. The basis for current cross-connection control and backflow prevention is based on the U.S. Clean Water Act, state and local health requirements that have been put in place to comply with the clean drinking water act, and increased urgency to secure the water supply. The site contact indicated that the backflows have inspected within the last year and are in good working order.

A main gas meter and 2-inch service is located on the south side of the building and supplies natural gas throughout the property. Welded and threaded black iron pipe is used for main gas piping throughout the Subject Property.

Domestic hot water is provided by seven, 6- to 10-gallon, electric resistance water heaters of varying ages and manufacturers located in the ceiling plenums adjacent to restrooms. Additionally, a 50-gallon, *State Select* electric resistance water heater is provided in a mechanical closet adjacent to the kitchenette in the vacant 2095 tenant space.



OBSERVATIONS

The water closets and urinals vary in age and have been continuously replaced on an as-needed basis since original construction. The manual flush valves for the water closets appear to be in good working order and will be maintained at the property as part of operational expenses during the analysis term.

The water heaters vary in age and in working order. Based on its reported age, current condition, and expected useful life, Replacement Reserves are recommended for electric water heater replacement during the analysis term.

The observed sanitary sewer main lines appears to be in good condition. Based on the reported age, current condition, and expected useful life, sanitary sewer main lines replacement is not anticipated during the analysis term.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Water heater replacement**

7.2 HVAC

DESCRIPTION

The building is heated and cooled by rooftop-mounted, packaged electric and gas, HVAC units, consisting of the primary components listed in the table below:

HVAC COMPONENTS					
AREA SERVED	NO. OF UNITS	MFR., MODEL #	TONS	TYPE OF EQUIPMENT	AGE
Office areas	1	Carrier, 48TCED144A2G5A0A0A0	12.5	Packaged Rooftop Unit	10 years old
Office areas	1	Trane, BYC130G3L0DA	10	Packaged Rooftop Unit	4 years old
Office areas	1	York, D7CG060N09925A	5	Packaged Rooftop Unit	21 years old
Office areas	1	Trane, YSC102H3ELA01C	8.5	Packaged Rooftop Unit	1 years old
Office areas	1	Trane, YCC030F1M0B3	3	Packaged Rooftop Unit	21 years old
Office areas	1	York, D7CG036N07925A	3	Packaged Rooftop Unit	18 years old
Office areas	1	Trane, YSC090A35HA000	7.5	Packaged Rooftop Unit	Unknown
Office areas	1	Trane, YCD075CC3L0BE	7.5	Packaged Rooftop Unit	23 years old
Office areas	4	Not Available	~ 7.5	Packaged Rooftop Unit	Unknown
Office areas	2	Trane, SFCA-753-LB	7.5	Packaged Rooftop Unit	Unknown
Office areas	1	Trane, YSC036G3RLB000	3	Packaged Rooftop Unit	1 year old
Office areas	1	York, D1EB018A6A	1.5	Packaged Rooftop Unit	21 years old
Office areas	1	Trane, YSC090H3RLA02C	7.5	Packaged Rooftop Unit	1 year old
Office areas	1	Carrier, 48TCEA05A2A5A0A0A0	4	Packaged Rooftop Unit	11 years old
Office areas	1	Carrier, 48HJE006	6	Packaged Rooftop Unit	17 years old
Office areas	1	Trane, YSC048E1EHA1SC	4	Packaged Rooftop Unit	5 years old
Office areas	1	Rheem, RKKL-B090CL22E	7.5	Packaged Rooftop Unit	3 years old
Office areas	1	York, D1NA024N05606C	2	Packaged Rooftop Unit	21 years old

Cooling for the tenant office spaces is provided by rooftop-mounted, packaged, electric & gas HVAC units that use R-22 and R410a refrigerant.

Due to the mandated higher efficiencies for the HVAC equipment, any replacement HVAC unit is now required to be at or above 14 SEER which has increased the cost of new equipment. For residential split systems, and the phase-out of R-22, the indoor and outdoor equipment may both need to be replaced to meet the requirements. For now, there are available HVAC components to keep these systems operational. Currently, the new refrigerant used for the equipment is R-410a which operates at a higher pressure and is not compatible with R-22, nor is it as harmful to the environment.

Replacement R-22 systems can be purchased without refrigerant and your old stock of R-22 or reclaimed R-22 refrigerant can be charged into the systems by certified and qualified personnel. This equipment will reportedly be available until 2020 when it is discontinued. One must balance the cost of replacement of an existing system with that of purchasing a higher efficiency system that will be supported at least as long as the analysis term.

Temperature control for each space is provided by wall-mounted digital thermostats.



OBSERVATIONS

Discussions with the owner's representative indicate that, according to the Subject Property lease terms, the owner is responsible for HVAC repairs and replacement.

The gas service lines were noted and reported to be in good to fair condition. See *Section 4.1* for further discussion. The gas service piping will be maintained at the subject property as part of operational maintenance during the analysis term.

The rooftop-mounted HVAC units appear to be in good to fair overall condition, with no reported problems noted. The average useful life of packaged units of this size and type is approximately 14 to 18 years, depending upon their location, maintenance and use type. The HVAC units are reportedly serviced on a regular basis. Based on their average effective useful life, current condition and reported maintenance program, Replacement Reserves for partial replacement of the rooftop-mounted HVAC units is recommended during the analysis term.

Several rooftop HVAC units, equipment, and components were abandoned in place on the Subject Property roof. Based on observed and reported conditions, Immediate Repairs are recommended for removal of the abandoned HVAC equipment on the roof and the installation of a proper curb and cover.

All rooftop-mounted HVAC units were found to dispense condensate directly onto the roof membrane. This can lead to advance degradation of the roof surface at these locations. Based on the observed conditions, Immediate Repairs we recommend all condensate be piped to roof drains.

	
Several RTUs appeared to be no longer in use.	All rooftop-mounted HVAC units were found to dispense condensate directly onto the roof membrane.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **Pipe condensate to internal roof drains**
- **Remove all equipment no longer in use**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **HVAC unit replacement**

7.3 ELECTRICAL

DESCRIPTION

The incoming services are rated as an 800-Amp, three-phase, four-wire, 120/240-Volt main, a 200-Amp, three-phase, four-wire, 120/240-Volt main, and a 400-Amp, three-phase, four-wire, 120/240-Volt main feeding the main distribution panels (MDPs) located within two electrical rooms at the southeast corner of the building.

The observed services are protected by circuit breakers. Beyond standard ground rods or grounded connections to major piping systems, additional lightning protection was not observed.

The Subject Property has dry-type, step-down transformers on each floor that reduce the higher service voltage of 277/480-Volts down to 120/208-Volts for smaller scale equipment, appliances, wall receptacles and various lighting fixtures.

The electrical equipment is made by *Westinghouse* and *Square D*.

The Subject Property reportedly has copper branch wiring and copper feeder cables. Standard electrical devices, switches, and fixtures consistent with the Subject Property use type were also observed through the building. GFCI fixtures were observed during the survey in the restrooms and kitchen areas.

The transformers fall into two basic categories, dry and liquid-filled, with the most widely used type being liquid-filled containing mineral oil. Prior to 1979, many liquid-filled transformers contained oils with Polychlorinated Biphenyls or PCBs. The property was constructed in 1970 and the possibility of the transformer containing PCBs exists. The liquid-filled transformers are typically located outside due to the potential of fire hazard from oil leaks.

A natural gas-fueled *Generac* emergency generator serves the Subject Property and is located adjacent to the main electrical rooms at the rear side of the Subject Building.

Lighting in the office areas is primarily from fluorescent fixtures. The fixtures typically are 2'x4' or 2'x2' with two to four T-12 or T-8 lamps. Mechanical and support area lighting includes fluorescent tube fixtures of varying length (typically 4' and 8').



Main electrical service.



Typical electrical panel.



Emergency generator condition.



Natural gas piping to the emergency generator.

OBSERVATIONS

There were no reported or observed problems with the electrical system sizes or capacities. This utility appears to be configured and operated in a manner consistent with its intended use, and adequate for the use type. Discussions with the owner's representative indicate that, according to the Subject Property lease terms, the owner is responsible for interior electric repairs and replacement.

EBI was not provided with any information regarding infrared (IR) surveys performed at the Subject Property. Due to the age of the electrical equipment, an IR survey is recommended as a Short Term Repair and is recommended to be completed periodically as part of routine maintenance during the analysis term.

Infrared (IR) surveys are done by either electricians or testing firms specializing in this work using an infrared camera (thermal imaging) to detect relative "hot spots" in switchgear panels and breaker panels. The "hot spots" indicate higher resistance in wires, normally at connection points, and thus indicate areas that may not have proper connections between wires and termination points. The normal course of action if a "hot spot" is detected is to check the torque on the screws/bolts that hold the wire to the panel connection, as well as clean off any oxidation on the wire. Once a firm completes their survey, they typically affix inspection tags to the switchgear and breaker panels, noting the firm name and the date of testing, as well as supplying a written report to the property owner documenting their findings and the corrective action taken.

GFCI receptacles were observed consistently in the adjacent to the water sources in the restrooms.

The property's 400-amp main electrical disconnect switch was installed and manufactured either before or in the 1970's. The disconnect equipment is therefore 35 years of age or older, and procurement of spare parts is difficult for most of the equipment. Based on the observed condition of the disconnect switch, and the average effective useful life of main power disconnects; replacement of the 800-amp main electrical switch is recommended as a Replacement Reserve over the analysis period.

Several Subject Property electrical systems have been decommissioned and/or are not functioning. Based on observed conditions, Short Term Repairs are recommended for these systems to be disconnected and removed from the site. This is a possible safety issue; some of the systems may have been left energized although they have been decommissioned.

The emergency generator is approximately 15 years old. Generators of this size and type have an average expected useful life of approximately 25 to 30 years, depending on their maintenance and amount of regular testing and usage, but can be extended with refurbishment/overhaul of the unit. The emergency generator was not operated during our on-site assessment. According to maintenance personnel, the generator is exercised at regular intervals during the year. Based on its reported age, current condition, and expected useful life, Replacement Reserves are recommended for refurbishment of the emergency generator is recommended during the analysis term.

Of note, stored materials were observed in the electrical room housing Main 1. Based on the observed conditions, Immediate Repairs are recommended to remove all stored materials. There were no other reported or observed problems with the electrical system sizes or capacities. This utility appears to be configured and operated in a manner consistent with its intended use, and adequate for the use type.

Additionally, one of the transformers located at the southeast corner of the Subject Property was found to have a rusted exterior casing. Based on the observed conditions, Short Term Repairs are recommended to prepare, prime, and paint the transformer casing.



RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **Perform IR survey**
- **Remove stored materials from main electrical room**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **Prepare, prime, and paint transformer casing**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Replace Main Circuit Breaker, 3 phase (400 Amp)**
- **Refurbish emergency generator and controls**

7.4 BUILDING & SITE FIRE & LIFE SAFETY

DESCRIPTION

Observed fire and life safety systems serving the building include an *Altronix* multiple-zone, fire alarm control panel that has an auto-dialer reportedly tying the system to the fire department, an addressable master fire control panel with interface from remote panels.

The Subject Property also has hardwired with battery-backup smoke detectors, pull stations, illuminated exit lights with battery-backup, emergency battery lighting units, horn/light annunciators in restrooms, and fire extinguishers spread throughout the tenant spaces.

	
Fire alarm panel.	Typical smoke detector and annunciator.
	
Typical exit sign.	Restroom horn/light annunciator.

OBSERVATIONS

The fire alarm control panel is approximately 15 years old and appears to be in serviceable condition. Based on its reported age, current condition, and expected useful life of approximately 20 to 25 years, Replacement Reserves are recommended for fire alarm control panel replacement during the analysis term.

The fire extinguishers are reportedly inspected annually, however, expired fire extinguishers were observed throughout the Subject Property. Based on the observed conditions, Immediate Repairs are recommended to replace all expired fire extinguishers.

The emergency exit doors and panic hardware appear to be in serviceable condition and will be maintained at the property as part of operational expenses during the analysis term. The doors are to swing-open into the direction of emergency egress.

Illuminated exit signs are located at the entry doors to the emergency exits and appear to be in serviceable condition. The exit signs are recommended for annual inspection, and inoperative lamps replaced as required as part of routine maintenance operations.



RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **Inspect and retag or replace fire extinguishers**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **Replace fire alarm control panel**

7.5 ELEVATORS AND CONVEYING SYSTEMS

DESCRIPTION

The Subject Property has no elevators.

OBSERVATIONS

Not applicable.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 1 for the recommended Short Term Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

8.0 MUNICIPAL RESEARCH

A number of sources were contacted during the preparation of this *Report*. The following individuals were interviewed, and state, county or local municipal departments consulted. Documentation applicable to the Subject Property in those departments was requested and reviewed when and where available and/or reasonably ascertainable. Individuals listed without phone numbers were contacted in person or by e-mail.

MUNICIPAL REFERENCES				
RESOURCE	CONTACT	INFORMATION PROVIDED	PHONE OR WEB	DATE
<i>Springfield Assessors Department</i>	online	Property ownership & size information	https://www.springfield-ma.gov/finance/assessors/assessors.php?parcel=103600413	10/23/19
<i>Springfield WebGIS</i>	online	Zoning information	https://maps.springfield-ma.gov/gis/?parcelid=103600413#info-address	10/23/19
<i>The Springfield Fire Department</i>	online	Fire history & code violations	https://www.springfield-ma.gov/fire/	11/4/19

8.1 MUNICIPAL INFORMATION & ZONING

MUNICIPAL INFORMATION

Readily available, reasonably ascertainable and publicly viewable municipal records at *City of Springfield* were reviewed at the on-line.

ZONING

The municipal zoning office personnel were consulted, the zoning office files were reviewed, and/or the zoning ordinance was reviewed to determine the zoning of the Subject Property. According to the information provided, the Subject Property is currently located within an *IP, Industrial Park* district and appears to be a conforming use.



Zoning Map

8.2 BUILDING & PLANNING DEPARTMENT

DESCRIPTION

The municipal Building and Planning Departments were consulted for open material violations, and to obtain, *readily available, reasonably ascertainable* and *publicly viewable* documents regarding the Subject Property.

CONCLUSION

This municipality provides responses to file inquiries for research purposes. The response time varies on municipal workload. *EBI* has submitted an inquiry for potential outstanding violations on file for the Subject Property. No response has been received as of this *Report*. If a response showing a material violation is provided to *EBI*, *EBI* will forward that notice under separate cover. If no response is received or no material violations are noted, our *Report* will not be modified.

RECOMMENDED ACTION ITEMS

Please see Table 1 for the recommended Action Items listed below:

- **None**

8.3 FIRE DEPARTMENT

DESCRIPTION

The local fire department was consulted for open material violations.

CONCLUSION

This municipality provides responses to file inquiries for research purposes. The response time varies on municipal workload. *EBI* has submitted an inquiry for potential outstanding violations on file for the Subject Property. No response has been received as of this *Report*. If a response showing a material violation is provided to *EBI*, *EBI* will forward that notice under separate cover. If no response is received or no material violations are noted, *EBI's Report* will not be modified.

RECOMMENDED ACTION ITEMS

Please see Table 1 for the recommended Action Items listed below:

- **None**

9.0 HAZARDS

9.1 NATURAL HAZARDS

DESCRIPTIONS

9.1.1 Seismic

Chapter 16 of the 1997 edition of the Uniform Building Code (UBC) was reviewed to determine the Seismic Zone of the Subject Property. Chapter 16 includes calculations for and mapping of earthquake (seismic) loads on structures. Figure 16-2, Seismic Zone Map of the United States delineates differing ratings of seismic load and shows the United States having seismic Zones ranging from 0 to 4. These ratings indicate the severity of how horizontal ground motion and sub-surface soil types affect a structure.

9.1.2 Flood Zone

The Federal Emergency Management Agency (FEMA) maps and rates flood hazard zones throughout the United States. These zones are depicted on a Flood Insurance Rate Map (FIRM), designated by Community Map and Panel numbers. The flood hazard zones range from Zone A or AE (A1 – A130), with Base Flood Elevations (BFE) determined, to Zone X, unshaded areas outside the 500-year floodplain. EBI utilizes *CoreLogic's* FloodInsights mapping system, which searches the FEMA FIRM map and panel, to obtain the Flood Zone Determination of the Subject Property.

9.1.3 Wind Zone

FEMA maps and rates wind hazard zones, Special Wind Regions and Hurricane-Susceptible Regions throughout the United States. These zones are depicted on a Map of Wind Zones in the United States on FEMA's website – www.fema.gov/fima/tsfs13.shtm and <http://www.fema.gov/graphics/library/wmap.gif>.

CONCLUSIONS

9.1.1 Seismic

According to Figure 16-2 in the *UBC*, the Subject Property appears to be located in Zone 2A, with a low to moderate probability of damaging ground motion.



9.1.2 Flood Zone

The Subject Property Flood Zone Determination appears to be Zone X, defined as an area outside the 100- and 500-year floodplains, as shown on First American Flood Data Services' Flood Hazard Certification, Community Map #250150, Panel #0218E, dated July 16, 2013.

FloodInsights



FloodInsights Report For:
2071 Roosevelt Avenue, Springfield MA 01104
42.136372/-72.546598
Geocoding Accuracy: MP

Original Input Address: 2071 Roosevelt Avenue, Springfield MA 01104

Flood Zone Determinations

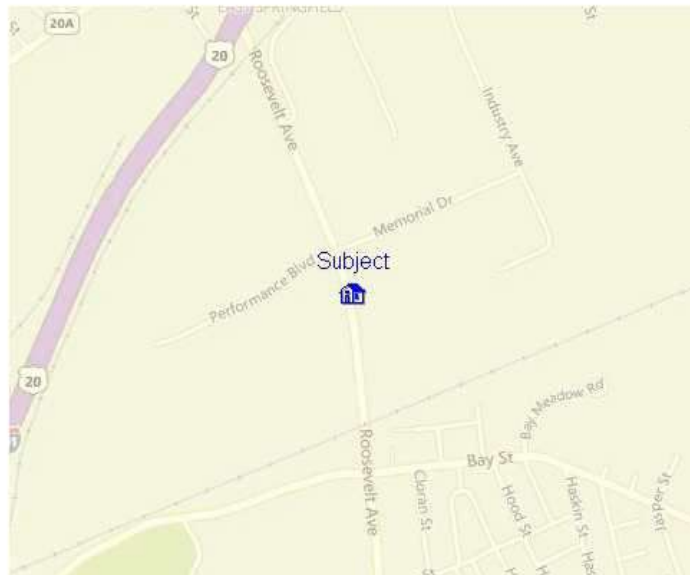
SFHA	Within 250 feet of multiple flood zones?				
Out	No				
Map Number					
25013C0218E					
Community	Community_Name	Zone	Panel	Panel_Date	Cobra
250150	SPRINGFIELD, CITY OF	X	0218E	July 16, 2013	COBRA_OUT
FIPS Code	Census Tract				
25013	25013800202				

FloodMap Legend

Flood Zones

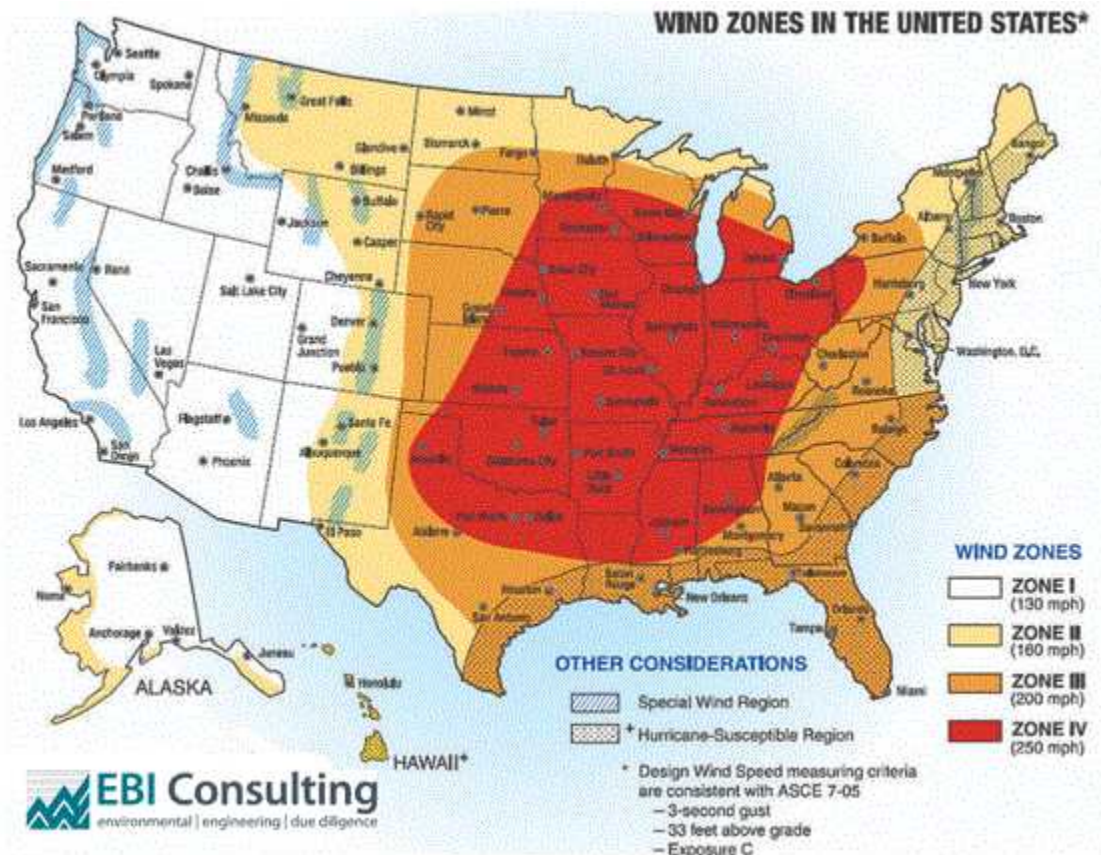
- Areas inundated by 500-year flooding
- Areas outside of the 100- and 500-year floodplains
- Areas inundated by 100-year flooding
- Areas inundated by 100-year flooding with velocity hazard
- Floodway areas
- Floodway areas with velocity hazard
- Areas of undetermined but possible flood hazards
- Areas not mapped on any published FIRM

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9.1.3 Wind Zone

Based on FEMA's Map of Wind Zones in the United States, the Subject Property appears to be located in Zone II, up to 160 mph winds. The Subject Property appears to be located in a Hurricane Susceptible or a Special Wind Region. However, the Subject Property is not located in a Special Wind Region.



9.2 SUSPECT MOLD AND MOISTURE

Interior areas of the Subject Property buildings to which access was provided, and in which building elements were readily observable, were reviewed for the presence of moisture and visible or olfactory evidence of microbial development (suspect mold). No observations were conducted within concealed locations (construction elements behind wall and ceiling finishes, and other building components, etc.). No sampling or testing was performed to confirm the presence of invisible airborne microbial elements. In addition to EBI's observation efforts, property personnel did not indicate the presence of moisture or suspect mold during the survey. EBI's Pre-Survey Questionnaire was not returned by the property personnel, therefore no other information was provided.

Representative Subject Property observations and interviews revealed no obvious visual or olfactory indications of the presence of active moisture or suspect mold activity. No recommendations concerning moisture or mold are made at this time.

RECOMMENDATIONS

Please see Table 1 for the recommended Immediate Repairs listed below:

- **None**

Please see Table 2 for the recommended Replacement Reserves listed below:

- **None**

10.0 REFERENCES

10.1 CONTACTS

DESCRIPTION

A number of sources were contacted during the preparation of this *Report*. The following individuals were interviewed for information concerning the Subject Property. Documentation applicable to the Subject Property was requested and reviewed when and where available and/or reasonably ascertainable. Individuals listed without phone numbers were contacted in person or by e-mail.

REFERENCES				
RESOURCE	CONTACT	INFORMATION PROVIDED	PHONE OR WEB	DATE
Property Owner, <i>Saremi LLP</i>	Tyler Saremi	Overall condition and maintenance, Deferred Maintenance items.	(413) 262-3265	10/22/19
Property Maintenance, <i>Saremi LLP</i>	Luis Nunez	Overall condition and maintenance, Deferred Maintenance items.	(413) 478-4565	10/22/19

10.2 PERTINENT INFORMATION PROVIDED OR OBTAINED

EBI's Pre-Survey Questionnaire was forwarded to the designated property contact. The information requested in the questionnaire assists in *EBI's* research of the property to obtain pertinent property data; discover existing physical deficiencies, chronic problems, the extent of repairs, if any, and their costs; and pending repairs and improvements. The Pre-Survey Questionnaire was not returned as of this *Report*. If the questionnaire is returned at a later date showing a material difference from information provided in this *Report*, *EBI* will forward the questionnaire under separate cover. If no response is received, or no material difference is noted in the questionnaire, *EBI's Report* will not be modified.

The following information was provided and reviewed on a cursory basis as background information of this report:

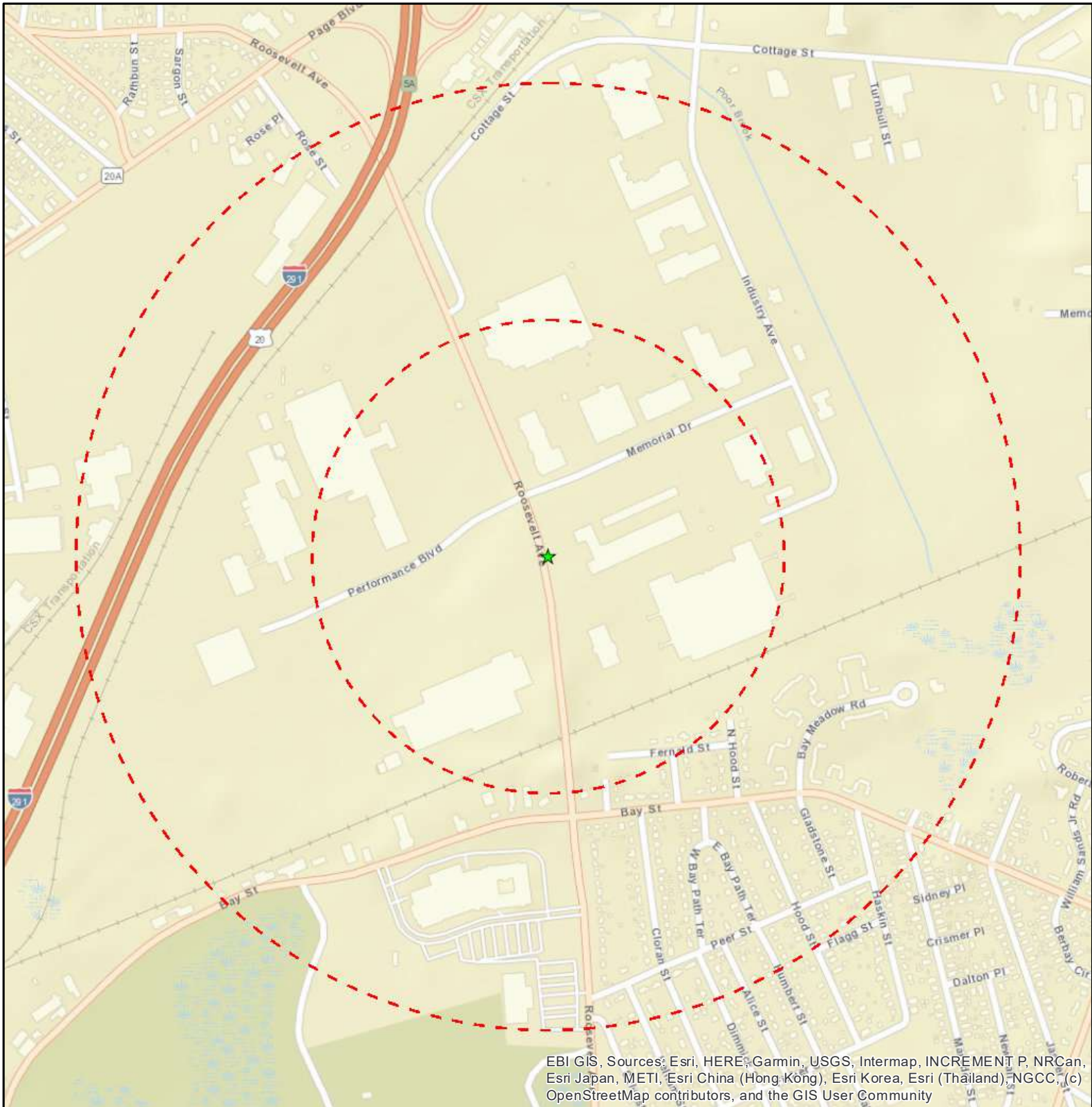
EXHIBITS RECEIVED AND REVIEWED	YES	NO	DESCRIPTION/COMMENTS
1. A.L.T.A. Survey		X	Not provided.
2. Legal Description of the Property	X		Tax assessor property card
3. Location Maps	X		Obtained by EBI.
4. Project Specifications		X	Not provided
5. Soils Report		X	Not provided
6. Local Building Code Compliance	X		Request submitted by EBI
7. Date of Permits and Cert. of Occupancy for Each Building		X	Not provided
9. Owner's Repair List and Cost Breakdown		X	Not provided
10. Other	X		Building floorplans

10.3 SUBJECT PROPERTY DRAWINGS REVIEWED

DESCRIPTION

No drawings were provided or obtained for review.

APPENDIX A - FIGURES, DRAWINGS AND PLANS



Legend

- ★ Project Site
- Site Radius at ¼ and ½ mile

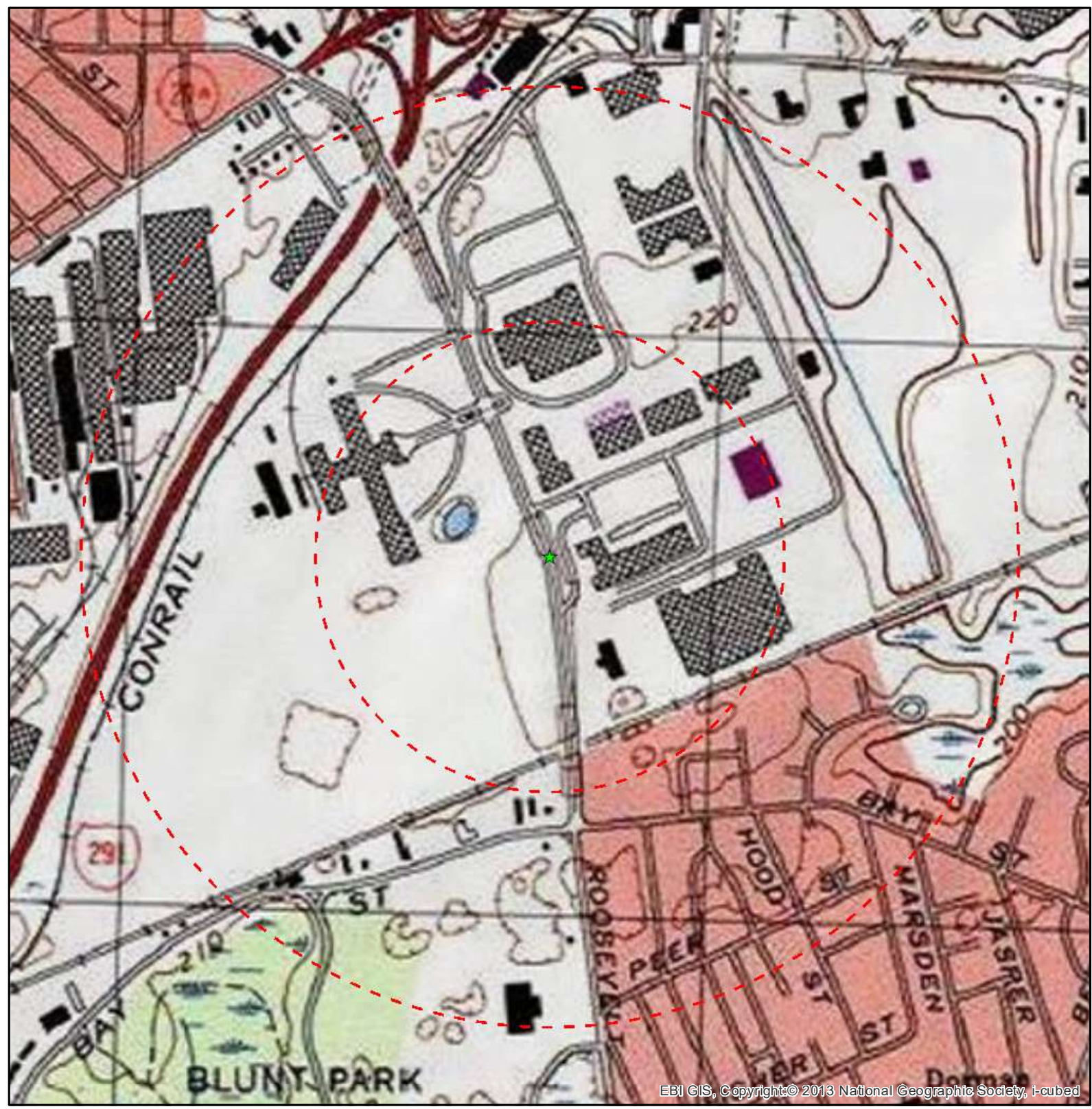
Date: 10/17/2019

Figure 1: Site Location Map

**2071 ROOSEVELT AVENUE
2071 ROOSEVELT AVENUE
SPRINGFIELD, MA 01104**

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Legend

- ★ Project Site
- Site Radius at 1/4 and 1/2 mile

USGS 24K Quad: Springfield North, MA 1986

Date: 10/17/2019

Figure 2 - Topographic Map

**2071 ROOSEVELT AVENUE
2071 ROOSEVELT AVENUE
SPRINGFIELD, MA 01104**

PN: 1319000555

FloodInsights Report For:
2071 Roosevelt Avenue, Springfield MA 01104
 42.136372/-72.546598
Geocoding Accuracy: MP
 Original Input Address: 2071 Roosevelt Avenue, Springfield MA 01104

Flood Zone Determinations

SFHA **Within 250 feet of multiple flood zones?**

Out No

Map Number

25013C0218E

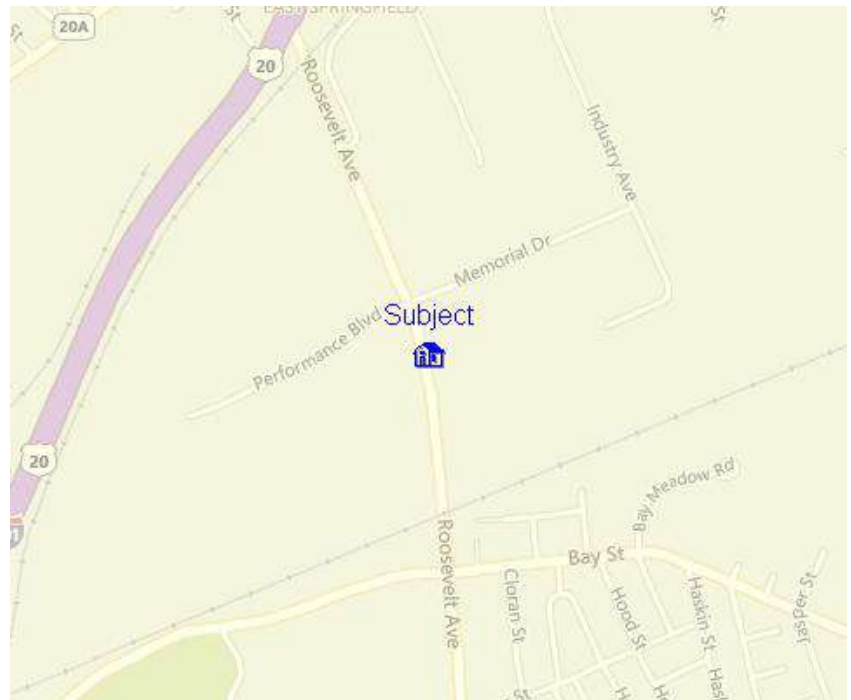
Community	Community_Name	Zone	Panel	Panel_Date	Cobra
250150	SPRINGFIELD, CITY OF	X	0218E	July 16, 2013	COBRA_OUT
FIPS Code	Census Tract				
25013	25013800202				

FloodMap Legend

Flood Zones

- Areas inundated by 500-year flooding
- Areas outside of the 100- and 500-year floodplains
- Areas inundated by 100-year flooding
- Areas inundated by 100-year flooding with velocity hazard
- Floodway areas
- Floodway areas with velocity hazard
- Areas of undetermined but possible flood hazards
- Areas not mapped on any published FIRM

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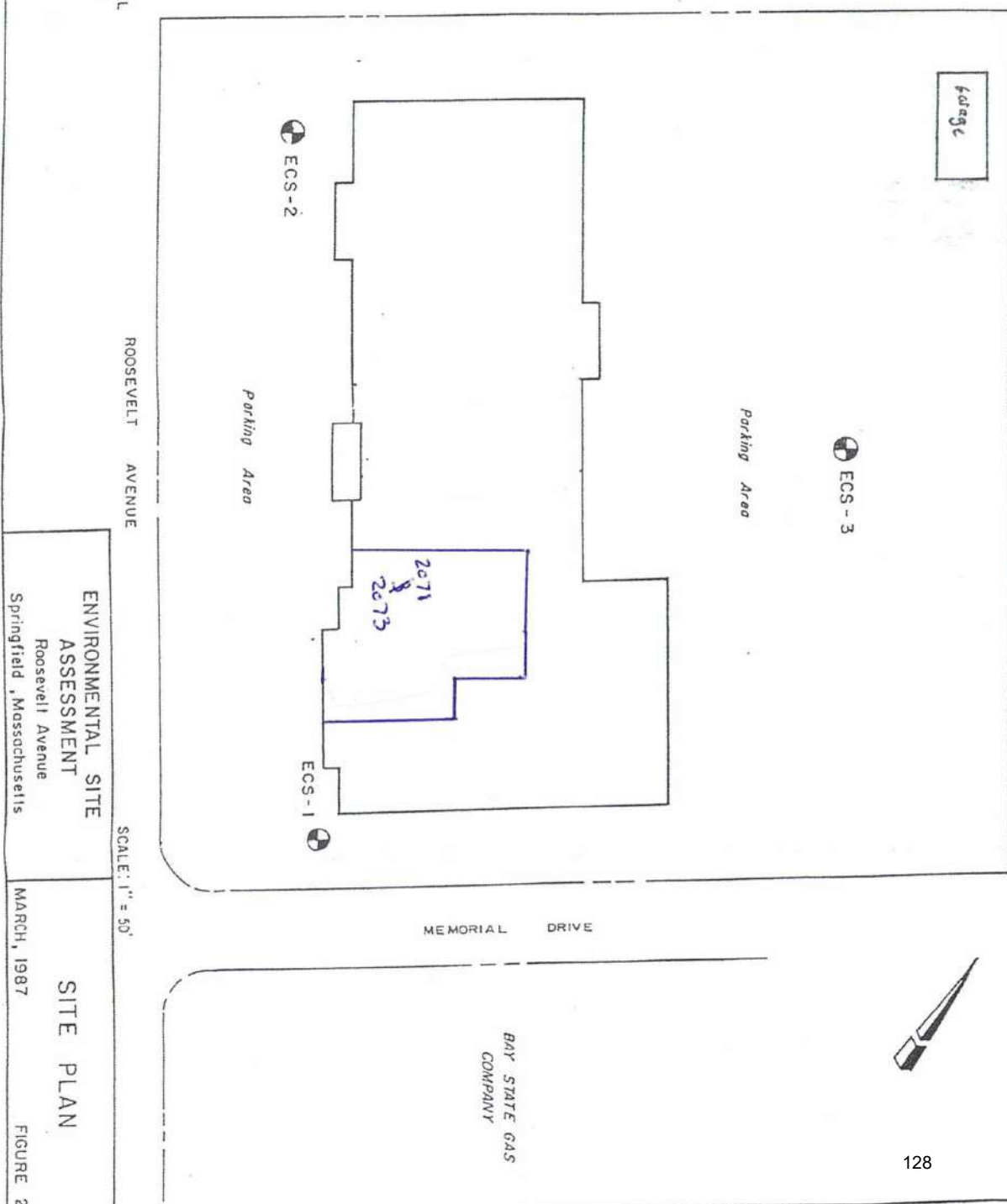


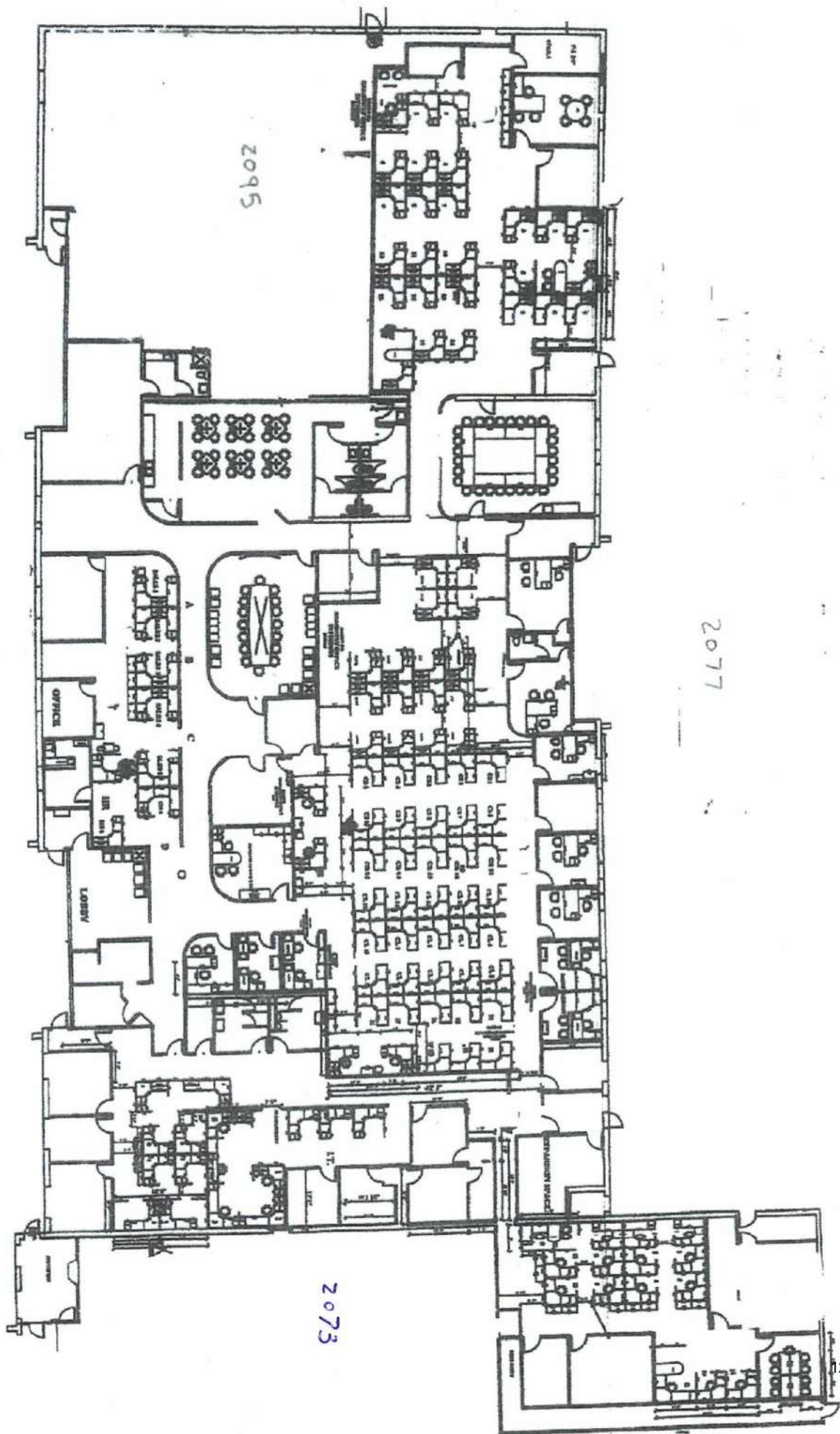
APPENDIX B - OTHER RELEVANT DOCUMENTS

REXNARD MECHANICAL
POWER DIVISION

LEGEND
GROUNDWATER MONITORING WELL

NOTE: BUILDING AND MONITORING WELL
LOCATIONS ARE APPROXIMATE.





2073

→ 25' ←

Opening

→ 9' ←

12

→ 10' ←

Storage

→ 12' ←

→ 5' ←

→ 11' ←

→ 8' ←

→ 7' ←

→ 8' ←

→ 4' 9" ←

→ 10' ←

→ 4' 9" ←

→ 20' ←

N

2071

Conference Room

→ 25' 2" ←

Parking

GENTIVA
2069 ROOSEVELT AVE
SPRINGFIELD, MASSACHUSETTS

28 Emerson Street, Boston, MA 02118
617-263-1753 Fax 617-263-8710
e-mail: info@pda.com
<http://pda.com>

☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
--	--

DEMO PLAN, NEW
WORK FLOOR
PLAN &
SCHEDULES

A101

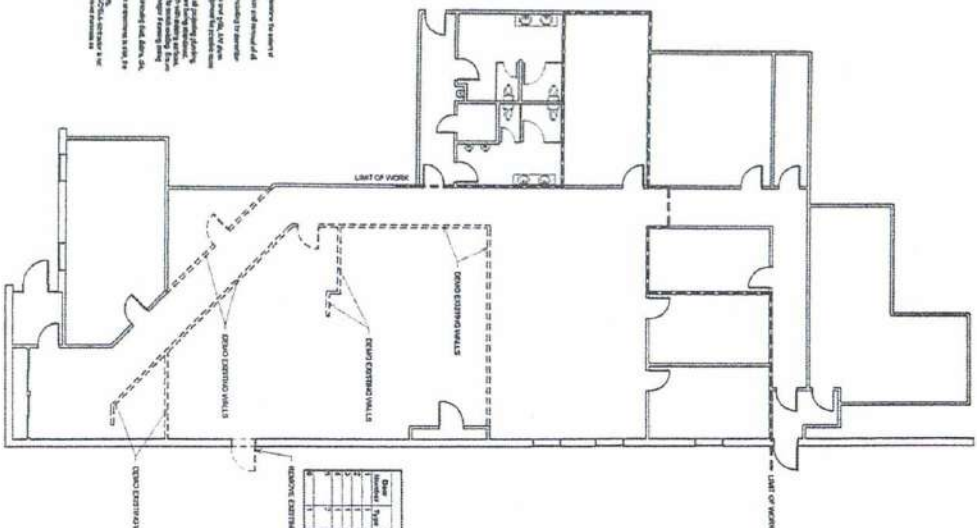
AMERICAN SOCIETY OF HUMAN GENETICS

2 FIRST FLOOR PLAN
18' x 28'

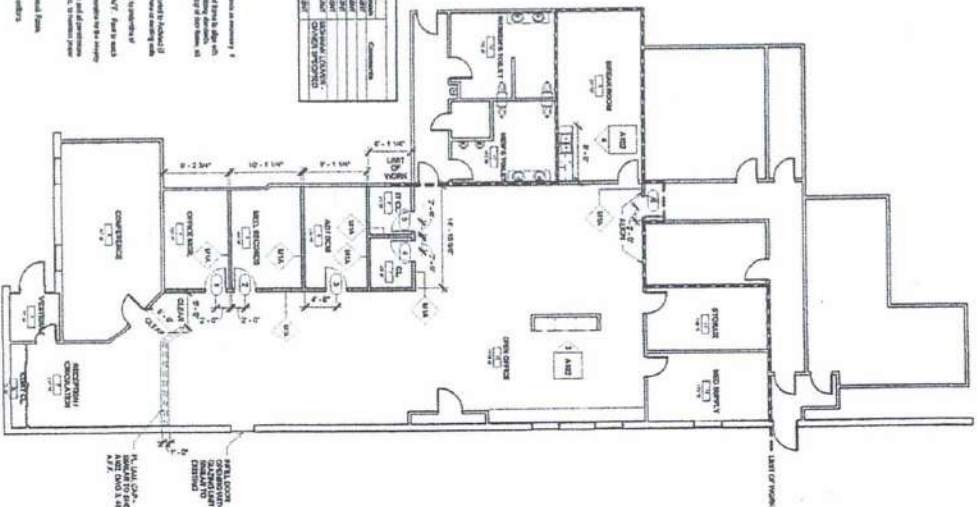
1 DEMO 1ST FLOOR PLAN

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Date	Time	Wind	Temp	Humidity	Wind Dir	Observations		Remarks
						Wind	Temp	
1	7:00	1-2	15.0	85	100	100	100	100
2	7:00	1-2	15.0	85	100	100	100	100
3	7:00	1-2	15.0	85	100	100	100	100
4	7:00	1-2	15.0	85	100	100	100	100
5	7:00	1-2	15.0	85	100	100	100	100
6	7:00	1-2	15.0	85	100	100	100	100
7	7:00	1-2	15.0	85	100	100	100	100
8	7:00	1-2	15.0	85	100	100	100	100
9	7:00	1-2	15.0	85	100	100	100	100
10	7:00	1-2	15.0	85	100	100	100	100
11	7:00	1-2	15.0	85	100	100	100	100
12	7:00	1-2	15.0	85	100	100	100	100
13	7:00	1-2	15.0	85	100	100	100	100
14	7:00	1-2	15.0	85	100	100	100	100
15	7:00	1-2	15.0	85	100	100	100	100
16	7:00	1-2	15.0	85	100	100	100	100
17	7:00	1-2	15.0	85	100	100	100	100
18	7:00	1-2	15.0	85	100	100	100	100
19	7:00	1-2	15.0	85	100	100	100	100
20	7:00	1-2	15.0	85	100	100	100	100
21	7:00	1-2	15.0	85	100	100	100	100
22	7:00	1-2	15.0	85	100	100	100	100
23	7:00	1-2	15.0	85	100	100	100	100
24	7:00	1-2	15.0	85	100	100	100	100
25	7:00	1-2	15.0	85	100	100	100	100
26	7:00	1-2	15.0	85	100	100	100	100
27	7:00	1-2	15.0	85	100	100	100	100
28	7:00	1-2	15.0	85	100	100	100	100
29	7:00	1-2	15.0	85	100	100	100	100
30	7:00	1-2	15.0	85	100	100	100	100
31	7:00	1-2	15.0	85	100	100	100	100

[illegible]

From: [Springfield MA Public Records](#)
To: [RE Research Group](#)
Subject: [Records Center] Public Records Request :: R001578-101819
Date: Wednesday, October 30, 2019 6:02:37 PM

--- Please respond above this line ---



RE: PUBLIC RECORDS REQUEST of October 18, 2019, Reference # R001578-101819

Dear Joshua Ritz,

This email is in response to your public records request to the City of Springfield for **“2071 Roosevelt Avenue, Springfield, MA 01104**

EBI Consulting (EBI) is conducting a Phase I Environmental Site Assessment (ESA) and Property Condition Report (PCR) at the above-referenced Subject Property. As part of the research process, I would like to request access to records regarding the following, as applicable: - Installation or removal of storage tanks (above and underground); - Hazardous materials storage or release; - Hazardous waste generation or discharge; - Asbestos or lead-based paint abatement; - Current and historical fire code violations; - Open fire code violations; - Date of last fire inspection

Personnel in the Fire Department have advised that there are no records that are responsive to your request.

Should you be aggrieved by this response, you may appeal to the Supervisor of Public Records in the Massachusetts Secretary of State's Office pursuant to 950 CMR 32.00 and M.G.L.c. 66, §10(b).

Please contact the Public Records Coordinator, Andrea L. Stone, by responding to this email with any questions. Please reference public records request # R001578-101819 in all correspondence regarding this request.

Thank you

To monitor the progress or update this request please log into the [Public Records Center](#)





APPENDIX C - PROFESSIONAL QUALIFICATIONS

Summary of Experience

Mrs. Spano has performed a wide range of inspections including Physical Needs Assessments per Fannie Mae and Freddie Mac protocols, Property Condition Assessments to ASTM and custom protocols, and Property Condition Equity Evaluations for acquisition. With over six years of experience concentrated on due diligence, she has performed a variety of detailed engineering investigations including façade investigations and structural studies, as well as structural calculations and designs for new projects and modifications of existing structures. In total, Mrs. Spano has performed more than 500 due diligence assessments.

Mrs. Spano has provided calculation packages, under the supervision of a Professional Engineer, for projects including, but not limited to, drainage design, steel calculations (sizing metal deck, lintels, rebar in concrete, etc.), bolt calculations, and retaining wall design. She has provided construction monitoring services for a variety of projects, and has experience reviewing and logging submittals, writing and organizing transmittals, and managing project meetings.

Relevant Project Experience

- The Beekman Tower Hotel, New York, New York
- 245 Fifth Avenue, New York, New York
- Ballston Quarter Redevelopment, Arlington, Virginia
- Church Park, Boston, Massachusetts
- Throggs Neck Shopping Center, Bronx, New York
- Shops at Skyview Center, Queens, New York
- New York Times Building, New York, New York
- The Lennox, Jersey City, New Jersey
- LA Corporate Centers C & D, Monterey Park, California
- 125 South 31st Street (University of Pennsylvania), Philadelphia, Pennsylvania
- Harriet Tubman Quadrangle, Washington, District of Columbia

Education

Bachelor of Science in Civil Engineering, The Pennsylvania State University, University Park, PA

Professional Affiliations

Member of the American Society of Civil Engineers

Professional Registrations

Certified Engineer in Training, Commonwealth of Pennsylvania
OSHA 10-Hour Outreach Training – Construction

Summary of Experience

Mr. Munoz is a Senior Program Manager with over 20 years of experience specializing in facility investigations, property condition site assessments, construction management and monitoring. In addition, he has experience in quality assurance of the installation of foundation, structural, and roofing systems, as well as performing investigations and preparation of forensic engineering reports for investigation and remediation.

Relevant Project Experience

Project Conditions Assessment (PCA)

Mr. Munoz has completed numerous assessments and reviews property condition assessments for a wide range of properties such as office, multifamily, industrial, retail, hospitality, malls, and high rise properties in accordance with ASTM standards. Mr. Munoz has conducted these services in the United States as well as the Caribbean, Mexico, and Europe. These assessments are prepared to provide prospective buyers, current owners, and lenders information regarding the current condition of the facility components and the potential economic liability. Within the last four years, Mr. Munoz has completed over 200 reviews of engineering assessments of office, multifamily, industrial, retail, hospitality, malls, and high rise properties, throughout the U.S. in accordance with ASTM standards.

Capital Needs Assessment (CNA)

Mr. Munoz has completed numerous assessments and reviews of engineering assessments of apartment complexes, manufactured housing parks, healthcare facilities, throughout the U.S. in accordance with HUD MAP 223(f), HUD MAP 232/223(f), MAP 202/223(f) as well as the HUD LEAN 232/223(f) protocols. Mr. Munoz has conducted these services throughout the United States. These assessments are prepared to provide prospective buyers, current owners, and lenders information regarding the current condition of the facility components and the potential economic liability. Within the last four years, Mr. Munoz has completed over 400 reviews of engineering assessments of multi-family apartment complexes and healthcare facilities, throughout the U.S. in accordance with HUD MAP 232/223(f) as well as the HUD LEAN 232/223(f) protocols.

Phase One Assessments

Mr. Munoz has completed numerous environmental due diligence reports for property owners and financial institutions for portfolios and individual projects throughout the country. Property types included industrial, retail, multi-family apartment, office buildings and large-scale commercial developments.

Americans with Disabilities Act Assessments

Conducted Americans with Disabilities Act Compliance Surveys for property compliance, and transaction due diligence site assessments. Responsibilities associated with conducting Americans with Disabilities Act Compliance Surveys include evaluating facilities for compliance.

Education

B.S. in Operations Engineering, University of Central Florida, Orlando Florida

Professional Registrations

SBCCI MECHANICAL INSPECTOR, CERTIFIED 1994

SBCCI BUILDING INSPECTOR, CERTIFIED 1994

CERTIFIED BUILDING CONTRACTOR/ CGC2550

APPENDIX D - CONSULTANT REPORTS

NONE

**INSPECTION REPORT FOR
Asbestos-Containing Building Materials, Lead-Based Paint,
Polychlorinated Biphenyls and Mercury Containing Components**

**Commercial Office Building
2071 Roosevelt Street
Springfield, Massachusetts**

Prepared for:

Ms. Patricia Temple
QPD, LLC
One Beacon Street, 14th floor
Boston, Massachusetts 02110

Prepared by:

Smith & Wessel Associates, Inc.
188 Greenville Street
Spencer, Massachusetts 01562

Project 19416

November 18, 2019

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INTRODUCTION

QPD, LLC retained Smith & Wessel Associates, Inc. (SWA) to conduct inspections for asbestos-containing building materials (ACBM), lead-based paint (LBP), polychlorinated biphenyls (PCBs) and mercury containing components for the building located at 2071 Roosevelt Street in Springfield, Massachusetts. SWA inspected the building on October 22 and November 4, 2019 for due diligence purposes and for future renovations.

Asbestos

The purposes of the inspection were to evaluate the types, locations, and extent of suspect ACBM and to provide appropriate recommendations for its abatement and or management. SWA's inspection addressed both friable (materials that can be easily crumbled, crushed, or pulverized by hand pressure) and non-friable suspect materials.

SWA identified non-friable ACBM at the building in the form of the following materials:

- Floor tile/mastic
- Joint compound
- Mudded pipe fitting insulation
- Ceiling panels
- Duct tar

If any additional suspect materials are identified at later dates that are not addressed in this report, they must be assumed to be ACBM unless appropriate sampling and analysis demonstrates otherwise.

Lead-Based Paint

The purpose of the lead paint inspection were to evaluate the types, locations, and extent of suspect LBP in the building, to evaluate potential hazards associated with LBP, and to provide appropriate recommendations for its abatement and management.

The lead content of paints surveyed in the building ranged from less than 0.1 mg/cm² to 4.9 mg/cm² as measured with an X-ray Fluorescence Analyzer (XRFA). If LBP are impacted by demolition in a manner that may generate dust or fumes, compliance with Occupational Safety and Health Administration (OSHA) regulations regarding worker exposure to lead may be necessary. Additionally, United States Environmental Protection Agency (US EPA) and Massachusetts Department of Environmental (MA DEP) regulations relative to waste disposal may apply.

PCBs

SWA's investigation for PCBs in light fixture ballasts was visual only. Typically, ballasts installed after 1978 do not contain PCBs and are marked as such. Ballasts that do not have the "No PCBs" wording on the label are assumed to contain PCBs. SWA inspected

the labels on representative ballasts throughout the building. Those representative ballasts inspected did contain the "No PCBs" wording on the affixed labels and therefore are assumed not to contain PCBs in their capacitor oils. However, all ballasts must be checked for the "No PCBs" wording if removed in the future. No transformers were observed.

SWA also collected samples of window caulking, door caulking and expansion seam caulking from the building for laboratory analysis to determine their PCB concentrations. Analytical results indicate that the materials tested contain less than 50 ppm, the level at which the EPA would consider them "not authorized for use" in a building and would need to be removed. However, special handling and disposal requirements may still be necessary for materials containing PCBs less than 50 ppm.

Mercury Filled Fluorescent Light Fixtures

SWA estimates that there are 2,560 (4') and 110 (2') fluorescent bulbs and 2 heat regulating thermostats with associated mercury tubes at the site that would require recycling.

Exclusions

While SWA endeavored to conduct a thorough, comprehensive inspection, some exclusions are warranted. Because our inspection addressed a limited number of areas, it is possible that the locations that we inspected were not fully representative of materials found in other areas. Additional limitations may have impacted our ability to inspect all locations such as poor lighting, height constraints, unusual building features, occupancy, and stored materials that block access to suspect materials. Stored goods, debris, and building materials that were removed and were either stored or loose were not inspected, but if observed were assessed and quantified.

SWA does not guarantee that all suspect roof materials were identified. Typically, roofs were applied in multiple layers and were repaired over the years, therefore, the extent of suspect roof materials will not be known until the entire roof systems are removed. Further, the owner contracted the roofer to patch the roof following the roof sampling cuts.

While SWA followed industry standards during the inspection, we do not warrant that all suspect hazardous building materials were identified in or on the building and shall not be held liable related to future abatement costs related to hazardous materials that are either not discovered or not appropriately characterized. This is due in part to inherent problems with every building inspection, such as, but not limited to:

- Seemingly homogeneous materials that are not in fact homogeneous;
- Seemingly representative locations that are not in fact representative;
- Layered materials that are not uniformly present or are isolated;
- Materials that are present and accessible but were not considered to be hazardous,

- Materials that are present in an isolated and limited quantity; and
- Material that is present in locations that are unsafe or otherwise difficult to access.

Client acknowledges that SWA's inspection is inherently limited and all hazardous materials may only become apparent during the course of future renovation or demolition. During the course of future renovation/demolition work, it is likely that additional hazardous materials or materials suspected of being hazardous will be identified. Such materials should be assumed to be hazardous unless appropriate evaluation or sampling and analysis demonstrate otherwise. Contracts, specifications and plans should advise contractors to conduct controlled demolition work and stop immediately should any hazardous building materials be encountered during the course of their work.

1.0 ASBESTOS CONTAINING BUILDING MATERIALS

1.1 Scope of Work

SWA's Massachusetts certified Asbestos Inspectors, Ted Sherry (Cert. # AI-32572) and Eric Hanson (Cert. # AI-000220) performed the asbestos inspection of readily accessible and observable areas throughout the interior and exterior of the building. SWA was assisted during the roof inspection by professional Roof Contractor, CDA Roofing, of Agawam, Massachusetts. CDA Roofing penetrated the roof systems in several locations enabling SWA to collect samples of any suspect materials identified to be analyzed for asbestos content. CDA then repaired the sample locations against future leaks.

SWA inspected for the following types of suspect ACBM:

- Thermal system insulation (TSI), such as insulation on pipes, boilers, tanks and related equipment;
- Surfacing material, acoustical and decorative plasters, fireproofing and other sprayed or trowel applications; and
- Miscellaneous materials, such as window caulking, wallboard, floor tile, adhesives, and other building materials that are not TSI or surfacing materials.

To determine the asbestos content of suspect ACBM, SWA collected and analyzed representative bulk samples by extracting a small but representative portion of suspect material from the substrate. The samples, typically measuring one cubic centimeter, were collected using a variety of methods. The extracted samples were then placed into labeled, individual sealed plastic bags for transport to the laboratory.

EMSL Analytical, Inc. (EMSL) of Woburn, Massachusetts, a fully accredited asbestos analytical laboratory, analyzed the bulk samples utilizing Polarized Light Microscopy (PLM) in accordance with the requirements of 40 CFR Part 763, Subpart F, Appendix A (see Appendix A of this report). Because PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials, when a negative result is obtained by PLM (less than one percent asbestos), the laboratory was instructed to analyze the sample by Transmission Electron Microscopy (TEM) to confirm the results.

For each homogeneous sampling group, the laboratory analyzed samples until a positive result was obtained (i.e. greater than one percent asbestos) or until all samples were analyzed. If one sample indicates an asbestos content greater than one percent, the entire homogenous area must be considered to be an ACBM even if one or more samples in the group indicates an asbestos content of less than one percent.

1.2 Regulatory Guidance

The US EPA, OSHA, Massachusetts Department of Labor Standards (MA DLS) and MA DEP are responsible for regulating the release of asbestos into the environment and protecting workers from exposure to airborne asbestos fibers.

OSHA and MA DLS are responsible for the health and safety of workers who may be exposed in connection with their jobs including custodial activities, renovation work, and asbestos abatement. These agencies specify requirements for the work practices and engineering controls that must be utilized during asbestos abatement projects. They also require that ACM be repaired, removed, or otherwise appropriately abated before maintenance, renovation, or demolition work disturbs them. Thermal system insulation, surfacing materials, and floor tile installed before 1980 must be presumed to be ACM unless appropriate inspection and sampling analysis prove otherwise.

The EPA and MA DEP are responsible for developing and enforcing regulations necessary to protect the general public from airborne contaminants that are known to be hazardous to human health. They regulate ACM associated with renovation, demolition, and asbestos abatement projects via the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Title 40 CFR Part 61 regulation and MA DEP Chapter 141-E Asbestos Management and Control. These regulations require that buildings be inspected for ACM prior to renovation/demolition projects. They stipulate that all friable ACM as well as non-friable ACM that are in poor condition or will be made friable by renovation or demolition activity be removed or otherwise appropriately abated before they are disturbed.

1.3 Findings

SWA identified the following friable and non-friable *suspect* ACM:

• Joint compound	• Baseboard mastic
• Mudded pipe fittings	• Wall expansion
• Floor tile/mastic	• Ceiling tile
• Carpet mastic	• Window caulking
• Wall glue	• Window glazing compound
• Ceiling panels	• Roofing materials
• Duct tar coating	• Door caulking
• Gypsum board	• Fiberboard
• Vent caulking	• Door insulation
• Plaster	• Skylight sealer

SWA collected a total of 79 representative bulk samples of the above materials to determine asbestos content, of which 76 were analyzed using PLM. Three of the samples did not require analysis as the first sample in the homogeneous sampling group tested positive for asbestos (i.e. contain greater than one percent asbestos). In addition, five of

the samples were further analyzed using the TEM method.

SWA has listed in **Table 1**, the location and estimated quantity, by square foot (sf), linear foot (lf), or other appropriate unit, of each type of ACBM identified at the site.

Table 1 • List of Materials Testing Positive for Asbestos			
Type of Material	Location	Quantity	Sample number
White/gray mudded pipe fittings	Observed in vacant area cafeteria, bathrooms, south hall, south custodial closet, N/E training room, Future Health Suite and Kindred Company	110 ea.	02A
White/gray mudded pipe fittings	Not observed and assumed to be present behind fixed walls and plenum areas	80 ea.	02A
Tan/beige joint compound associated with original gypsum board (See note 1)	Observed in vacant N/E kick out section, adjoining hall (N/E) from bathroom area to exit, Kindred Company, S/E corner mechanical room and Future Health Suite	16,000 sf (estimate)	18A, 24A, 31A, 40A
White w/gray streaks 12" x 12" floor tile and associated mastic adhesive	South custodial closet between the bathrooms	30 sf	20A, 21A
Gray ceiling panels (painted white)	Throughout exterior overhang entrances	2,325 sf	23A
Black duct tar coating	Roof (see photo)	40 sf	29A
White 12" x 12" floor tile and associated mastic adhesive (beneath carpet)	Throughout Kindred Company carpeted areas	3,600 sf	32A, 33A
White 12" x 12" floor tile (2 nd layer) and associated mastic adhesive (beneath newer floor tile) (treat both layers as asbestos because they cannot be separated)	Kindred Company rear hall and adjoining rooms, rear rooms at carpeted open area and cafeteria	1,420 sf	32A, 33A
White 12" x 12" floor tile and associated mastic adhesive (beneath carpet)	Assumed to be present in the Future Health Suite	1,500 sf	Assumed

Note 1 – The original gypsum board with asbestos joint compound appears to be at various locations of the rear south/east vacant kick out section, future health and kindred suites. The older gypsum/JC appears to be primarily associated with the most outer walls and double layer gypsum board was observed at some locations. When the building becomes vacant it would be prudent to have SWA return to the site in order to help mark out the walls that contain asbestos joint compound.

In **Table 2**, SWA has listed all materials that tested negative for asbestos, including the locations where these materials were observed and the corresponding bulk sample reference number(s). The sample #'s marked in *italics* were further analyzed using the TEM method.

Table 2 • List of Materials Testing Negative for Asbestos		
Type of Material	Location	Sample No.
Gray window caulking	Throughout building	01A , 01B
Gray expansion joint	Throughout exterior brick walls	03A , 03B
White/gray 2' x 2' ceiling tile	Throughout vacant areas	04A, 04B
White joint compound	Throughout vacant areas, except for the rear S/E kickout building section	05A, 05B, 05C
Yellow carpet mastic adhesive	Throughout building	06A, 06B
White/gray 2' x 2' rough textured ceiling tile	Vacant section front office and conference room	07A, 07B
Tan/brown 12" x 12" floor tile and associated mastic adhesive	Vacant section cafeteria and hall	08A, 08B, 09A, 09B
Tan/yellow baseboard mastic adhesive	Throughout building	10A, 10B
White 12" x 12" floor tile (<i>newer vintage</i>) and associated black mastic adhesive (<i>beneath carpet</i>)	North end office areas	11A, 11B, 12A , 12B
Gray gypsum wallboard	Throughout building	13A, 13B
Beige 12" x 12" floor tile and associated yellow mastic adhesive	Vacant north office mens and womens bathrooms	14A, 14B, 15A, 15B
White w/gray spots 12" x 12" floor tile and associated black mastic adhesive	Vacant section east exit/closet, computer room, S/E storage room	16A, 16B, 17A , 17B
Black inner window glazing compound	Vacant section S/E conference room	19A, 19B
Gray door caulking	Throughout exterior	22A, 22B
Brown baseboard mastic adhesive	S/E corner mechanical room	25A , 25B
Brown fiberboard type roofing	Throughout roof (<i>Roof Layers: TPO – 1" ISO – PVC membrane – 2" Styrofoam – Fiberboard on a corrugated deck</i>)	26A, 26B
White/black vent caulking/tar	Roof	27A, 27B
White/black skylight caulking/tar sealer	Skylights	28A, 28B
White/gray 2' x 2' ceiling tile	Throughout Kindred Company	30A, 30B

Table 2 • List of Materials Testing Negative for Asbestos		
Type of Material	Location	Sample No.
Tan/green wall glue streaks associated with rolled fiberglass insulation	Vacant section east outer wall	34A, 34B
Red wall foam glue streaks	Vacant section east and west upper walls	35A, 35B
Pink 12" x 12" floor tile (<i>newer vintage</i>) and associated black mastic adhesive (<i>beneath carpet</i>)	Throughout vacant east training room near exit	36A, 36B, 37A, 37B
Red exhaust (2) seam sealer	Vacant east training room near exit at outer wall in plenum space	38A
Gray upper wall plaster	Plenum space at entrances	39A, 39B, 39C
Tan 12" x 12" floor tile (<i>newer vintage</i>) and associated black/yellow/gray mastic adhesive	Vacant space S/E kick out work room section at exit	41A, 41B, 42A, 42B
White fire door insulation	Vacant section near west lobby	43A, 43B

1.4 Conclusions and Recommendations

On the basis of our findings, SWA offers the following conclusions and recommendations:

1. Friable and non-friable ACM were identified at the site. ACM that will be impacted by renovation or demolition work must be removed prior to being disturbed. SWA recommends that this work be conducted in accordance with a project design as prepared by a licensed Asbestos Abatement Project Designer. ***This report is not intended for use as an abatement design.***
2. During the course of renovation or demolition work, it is possible that additional suspect ACM will be encountered. Contractors should be apprised to conduct any such work in a controlled manner. If suspect materials that have not been sampled are encountered, they should be assumed to contain asbestos, unless appropriate sampling and analysis indicates otherwise.
3. Because portions of the building were occupied during the assessment, SWA was not able to conduct intrusive/destructive investigation to inspect for hidden suspect building materials. Prior to demolition and when building becomes unoccupied, further assessments for suspect hidden materials will be required. This would include but not be limited to better understanding the location of older sheetrock with asbestos joint compound and further assessing flooring conditions relative to carpeted areas.

1.5 Cost Estimates

In **Table 3**, SWA has provided estimates of abatement costs associated with all identified ACBM in the inspected areas. These estimates are based on current industry standards that may fluctuate rapidly based on a variety of factors: the prevailing economic climate, seasonal differences, union labor considerations, scale of the abatement, occupancy of the building, and so on. SWA recommends that qualified abatement contractors be solicited to determine actual pricing involved. In addition to pricing for abatement, SWA has considered anticipated industrial hygiene costs associated with abatement, including air monitoring and oversight of the abatement.

Table 3 • Estimated Costs for Removal of ACBM		
Type of Material	Quantity/Unit cost (\$)	Total Cost (\$)
White/gray mudded pipe fittings	110 ea. @ 30/ea.	3,300.
White/gray mudded pipe fittings (<i>assumed</i>)	80 ea. @ 30/ea.	2,400.
Tan/beige joint compound associated with original gypsum board	16,000 sf @ 5/sf	80,000.
White w/gray streaks 12" x 12" floor tile and associated mastic adhesive	30 sf @ 12/sf	360.
Gray ceiling panels (<i>painted white</i>)	2,325 sf @ 7/sf	16,275
Black duct tar coating	40 sf @ 20/sf	800.
White 12" x 12" floor tile and associated mastic adhesive (<i>beneath carpet</i>)	3,600 sf @ 4/sf	14,400.
White 12" x 12" floor tile (<i>2nd layer</i>) and associated mastic adhesive (<i>beneath newer floor tile</i>) (<i>treat both layers as asbestos because they cannot be separated</i>)	1,420 sf @ 6/sf	8,520.
White 12" x 12" floor tile and associated mastic adhesive (<i>beneath carpet</i>) (<i>assumed</i>)	1,500 sf @ 4/sf	6,000.
Total Contractor Abatement Cost		\$132,055.
Total Industrial Hygiene Fee		20,000.
Total Fee		\$152,055.

2.0 LEAD-BASED PAINTS

2.1 Scope of Work

SWA's accredited lead paint inspector tested representative painted surfaces throughout the building. SWA analyzed paints for lead content using the NITON XLS-303-A, X-ray fluorescence analyzer (XRFA) following the manufacturer's instructions for initial calibration and operation. The XRFA uses a radioactive source to excite the electrons of lead atoms (if present) in paint. As the lead atom electrons return to their normal state, they emit x-rays that are measured by the XRFA, then processed and the results converted to milligrams of lead per square centimeter of sampled surface area. On most substrates, the XRFA is precise to $+0.1 \text{ mg/cm}^2$.

Surfaces tested included, but were not limited to walls, ceilings, doors, casings/jambes, joists and other miscellaneous surfaces.

2.2 Regulatory Guidance

In all areas where LBP is disturbed by renovation work and where components covered by LBP are disposed of, applicable OSHA and EPA regulations apply.

OSHA

Renovation or demolition activities that disturb surfaces that contain lead must be conducted in accordance with the OSHA regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule." This regulation requires that a site-specific health and safety plan be prepared before conducting activities that create airborne lead emissions. Such a plan should include the identification of lead components, an exposure assessment, and, if applicable, the required work procedures and personnel protection to be used.

An exposure assessment in the form of personal air monitoring must be performed if there is the potential for employees to be exposed to lead due to the renovation or demolition activity. If demolition is being conducted that will disturb lead-based paints, the employer must assume that employee exposure is in excess of the Permissible Exposure Limit (PEL) of 50 micrograms per cubic meter of air ($\mu\text{g/m}^3$) until the exposure assessment is completed. If the PEL is exceeded, employees are required to use half-face mask respirators with HEPA filter cartridges. Furthermore, a written respirator program is required per 29 CFR 1910.134. The lead standard also requires the following protective measures be taken until the exposure assessment is completed:

- Isolation of the work area;
- appropriate personal protective clothing and equipment;
- change areas and hand washing facilities;
- biological monitoring; and
- training

The results of the initial exposure assessment will determine the protective measures that must be followed for the remainder of the project. OSHA may allow air-monitoring data from previous projects conducted under conditions closely resembling the present project to be used for the exposure assessment. If the exposure assessment indicates that exposure levels are below the Action Level of $30 \mu\text{m}^3$, there are no additional requirements under the standard if the conditions remain the same.

EPA

In addition to the worker protection requirements stipulated by OSHA, MA DEP and the EPA regulate the disposal of wastes that are potentially hazardous. Such wastes may include paint chips and residue generated during abatement or repainting work, or whole components, such as wood windows, doors, and trim that are coated with LBP and that are disposed of as the result of renovation or demolition work. Metal components are not regulated if they will be recycled and not disposed of in a landfill.

To determine the required method for disposing of permeable items coated with LBP, the MA DEP and the EPA require representative sampling of the debris to determine the quantity of lead that would be expected to leach into the environment if the debris were disposed of in a landfill. The representative sample(s) must be analyzed by the Toxicity Characteristic Leaching Process (TCLP). If the result of this procedure indicates that the sample leaches a lead concentration below five parts per million (ppm), the debris is not regulated and can be disposed of in a traditional construction landfill. However, the debris must be disposed of as hazardous waste if the TCLP result exceeds 5 ppm. To minimize the total volume of hazardous waste, segregating hazardous from nonhazardous waste is advisable.

HUD

The United States Department of Housing and Urban Development (HUD) has established a standard for lead-based paint, as tested using an XRF analyzer, of 1.0 mg/cm^2 . Although this standard only applies to housing funded by the federal government, it is a useful reference concentration for assessing hazards associated with lead in paint in other settings. Thus, when paint contains greater than 1.0 mg/cm^2 , special care should be taken when conducting activities that impact these paints. When conducting abrasive blasting, torch burning, or similar activities that generate significant dust or fume, hazards can be caused even at concentrations below the HUD standard.

2.3 Findings

Analysis of painted surfaces throughout the site indicate that lead levels range from $<0.1 \text{ mg/cm}^2$ to 4.9 mg/cm^2 . A summary of paints with elevated concentrations of lead (greater than 1.0 mg/cm^2) is presented in **Table 4**, and the results of all testing are presented in Appendix B.

Table 4 • Summary of Surfaces Coated With LBP				
Location	Substrate	Color	Component	Approx. Quantity
Women's room south	Ceramic	Yellow	Wall	240 sf
Men's room	Ceramic	Yellow	Wall	260 sf

2.4 Conclusions and Recommendations

Based on our findings, SWA offers the following conclusions and recommendations:

1. Limited components containing lead were identified at the site, including ceramic wall tiles. The actual lead content is present in the glaze of the tiles. Handling or impacting components that are covered by LBP may require compliance with the OSHA lead standard. To minimize exposure to airborne dust or fumes, torch burning, cutting, grinding, or similar high impact work on components covered by LBP should be avoided. Such work would need to be conducted by properly trained workers using appropriate worker protection and engineering controls.
2. For work activities that may generate airborne lead, the contractor(s) should perform an initial exposure assessment (personal air monitoring) for each individual task (e.g. demolition, abrasive blasting, and painting) that has the potential for causing worker exposure to be at or above the OSHA Action Level. In lieu of monitoring, historical data from similar operations may be used to comply with OSHA requirements.

2.5 Cost Estimates

SWA estimates that costs associated with OSHA and EPA compliance relative to lead paint at approximately **\$2,000** for this site. *If all lead paint coated components were to be de-leaded at the site or if the composite TCLP test failed, the costs would be increased substantially.*

3.0 POLYCHLORINATED BIPHENYLS (PCBs)

3.1 Scope of Work

Typically, the words “No PCBs” are imprinted on affixed labels on the housing of ballasts if it does not contain PCBs. To determine if light ballasts contain PCBs, SWA inspected representative ballasts associated with each type of fluorescent light fixture identified at the site.

SWA inspected for building materials that are typically sampled for PCBs. Six samples were collected of window caulking, door caulking and wall expansion from the building.

3.2 Background/Regulatory Guidance

According to the EPA, PCBs are toxic and persistent chemicals that were used primarily as insulating fluid in heavy-duty electrical equipment. They were also utilized in a wide variety of products including paints, caulks, light fixture ballast, oils, plastics, adhesives, tapes, carbonless copy paper, floor finishes and related products. Because PCBs are suspected carcinogens and may cause other adverse health effects, the EPA banned their manufacture and installation starting in 1979.

Any materials containing PCBs equal to or greater than 50 parts per million (ppm) are regulated under the Toxic Substance Control Act and the PCB regulation found at 40 CFR Part 761. Further, EPA policy, as described in “Current Best Practices for PCBs in Caulk Fact Sheet” updated in September, 2009, is that PCBs at concentrations greater than 50 ppm are not authorized for use and must be removed and properly disposed of.

Additionally, where <50 ppm caulk or PCB remediation waste is present, it may be regulated for removal and/or cleanup unless the <50 ppm PCB caulk meets the definition of an Excluded PCB Product as defined under 40 CFR Part 761.3. Excluded products would include those legally installed before October 1, 1984 and the resulting PCBs concentration is not the result of dilution or leaks or spills from other products. Thus, if a formerly installed PCB caulk containing greater than 50 ppm had been removed and replaced by a non-PCB caulk, the non-PCB caulk could be contaminated from the residue of the former caulk. In this instance, if the non-PCB caulk tested at a concentration above one ppm, it would be regulated as PCB containing.

Further, because PCBs may have leached into surrounding substrates, such as brick, CMU, and cement, or may have degraded and contaminated adjacent soil, assessment of masonry and soils is necessary on instances where PCBs are present in caulk or other building materials. Where analysis indicates contaminant concentrations above one ppm in masonry or soils, remedial actions are required.

3.2 Findings

SWA inspected the labels on representative ballasts throughout the building. Those representative ballasts inspected did contain the "No PCBs" wording on their affixed labels and therefore are assumed not contain PCBs in their capacitor oils. During renovations or demolition, all individual ballasts must be inspected for the "No PCB" wording on affixed labels to determine proper disposal/recycling requirements.

Analytical results indicate that the concentration of PCBs in the window caulking, door caulking and wall expansion at the building were all <50 PPM. This is below the EPA regulated standard for PCBs of 50 ppm or greater. SWA further believes the materials are original application and thereby an excluded product. Below is a summary of the results:

- Window caulking (01) – Throughout exterior, ND
- Wall expansion (02) – Throughout exterior, 0.25 PPM
- Window caulking (03) – Throughout exterior, ND
- Door caulking (04) – Throughout exterior, 0.42 PPM
- Wall expansion (05) – Throughout exterior, ND
- Door caulking (046) – Throughout exterior, ND

3.3 Conclusions and Recommendations

Based on our observations, we conclude the following:

1. Prior to renovation or demolition all ballasts should be inspected for the "No PCB" wording on the label to determine appropriate segregation and recycling requirements. Any ballast that does not contain the "No PCBs" wording on the affixed label is assumed to contain PCB oils and must be segregated for proper disposal/recycling.
2. All sampled building materials, such as caulking and glazing compound contain less than 50 ppm of PCBs. We have no reason to assume that these materials were not original installation prior to 1984 and therefore would be considered to be "excluded products", under EPA regulations pertaining to classifying PCBs. Building materials containing low levels of PCBs may require special handling and must be disposed in a landfill permitted to accept such waste.

3.4 Cost Estimates

SWA estimates that the cost to inspect, remove and dispose of individual ballasts and transformers and to properly dispose of building materials containing low level PCBs are estimated at **\$5,000** at the site.

4.0 MERCURY COMPONENTS

4.1 Scope of Work

SWA's inspectors observed fluorescent light bulbs suspected of containing mercury in the building. Typically when fluorescent light fixtures, thermostats, or switches will be removed and disposed of, SWA makes a conservative assumption that they contain mercury and should be handled as a regulated waste. These materials are classified as "Universal Wastes" and must be appropriately handled and packaged for disposal or recycling.

4.2 Findings

SWA estimates that there are 2,560 (4') and 110 (2') fluorescent bulbs at the site that would require recycling. Two heat regulating thermostats with associated mercury tubes were observed in the building.

4.3 Conclusions and Recommendations

Based on our observations, SWA offers the following conclusions and recommendations.

1. Fluorescent bulbs and thermostats are present at the site that is assumed to contain mercury. Prior to being impacted, all fluorescent light bulbs and thermostat mercury tubes must be collected and properly packaged for disposal or recycling in a facility permitted to accept Universal Wastes.

4.4 Cost Estimates

The cost to collect and dispose/recycle the fluorescent light bulbs and thermostats at this site is not expected to exceed **\$6,000**.

APPENDIX A

Certificates of Asbestos Bulk Sample Analysis (PLM & TEM)



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Received Date: 10/23/2019 4:05 PM

Analysis Date: 10/25/2019

Collected Date: 10/22/2019

Project: 2071 Roosevelt St Springfield MA- 19416

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01A 131908189-0001	Exterior Front At 2073 - Gray Window Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B 131908189-0002	Exterior Rear At 2069 - Gray Window Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A 131908189-0003	Mechanical Room 2069 - White Fitting Insulation	Gray Fibrous Homogeneous	20% Min. Wool	65% Non-fibrous (Other)	15% Chrysotile
02B 131908189-0004	Cafeteria 2077 - White Fitting Insulation				Positive Stop (Not Analyzed)
02C 131908189-0005	Bathroom Mens At Cafeteria 2077 - White Fitting Insulation				Positive Stop (Not Analyzed)
03A 131908189-0006	Gray Exterior Rear At 2071 - Gray Expansion Joint Caulking	Gray Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
03B 131908189-0007	Exterior North At 2095 - Gray Expansion Joint Caulking	Gray Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
04A 131908189-0008	Lobby 2077 - Gray 2"x2" Ceiling Tile	Gray Fibrous Homogeneous	45% Cellulose 20% Min. Wool	35% Non-fibrous (Other)	None Detected
04B 131908189-0009	Cafeteria 2077 - Gray 2"x2" Ceiling Tile	Gray Fibrous Homogeneous	45% Cellulose 20% Min. Wool	35% Non-fibrous (Other)	None Detected
05A 131908189-0010	Reception 2077 - White Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05B 131908189-0011	Hallway At Cafeteria 2077 - White Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05C 131908189-0012	Hallway 2071 - White Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06A 131908189-0013	Hallway 2077 - Yellow Carpet Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06B 131908189-0014	Northeast Office 2095 - Yellow Carpet Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A 131908189-0015	Front Office 2077 - Gray 2"x2" Ceiling Tile Rought Texture	Gray Fibrous Homogeneous	75% Min. Wool	25% Non-fibrous (Other)	None Detected

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Initial report from: 10/25/2019 16:31:50



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EMSL Order: 131908189

Customer ID: SMIT50

Customer PO: 19416

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
07B 131908189-0016	Large Conference Room 2077 - Gray 2"x2" Ceiling Tile Rought Texture	Gray Fibrous Homogeneous	75% Min. Wool	25% Non-fibrous (Other)	None Detected
08A 131908189-0017	Cafeteria 2077 - Tan/ Brown 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08B 131908189-0018	Hallway 2077 - Tan/ Brown 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09A 131908189-0019	Cafeteria 2077 - Yellow Mastic On 08	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09B 131908189-0020	Hallway 2077 - Yellow Mastic On 08	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10A 131908189-0021	Hallway 2077 - Tan Baseboard Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10B 131908189-0022	Hallway 2071 - Tan Baseboard Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11A 131908189-0023	North End Office 2095 - White 12"x12" Floor Tile Under Carpet	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11B 131908189-0024	By Northwest Women's Room 2095 - White 12"x12" Floor Tile Under Carpet	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12A 131908189-0025	North End Office 2095 - Black Mastic On 11	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12B 131908189-0026	By Northwest Women's Room 2095 - Black Mastic On 11	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13A 131908189-0027	North End 2095 - Gray Gypsum Board	Gray/Tan Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
13B 131908189-0028	Cafeteria 2077 - Gray Gypsum Board	Gray/Tan Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
14A 131908189-0029	Bathroom Mens 2095 - Beige 12"x12" Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14B 131908189-0030	Bathroom Womens 2095 - Beige 12"x12" Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15A 131908189-0031	Bathroom Mens 2095 - Yellow Mastic On 14	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15B 131908189-0032	Bathroom Womens 2095 - Yellow Mastic On 14	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16A 131908189-0033	East Exist 2095 - White 12"x12" Floor Tile With Gray Spots	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected



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EMSL Order: 131908189

Customer ID: SMIT50

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
16B 131908189-0034	East Exit 2095 - White 12"x12" Floor Tile With Gray Spots	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17A 131908189-0035	East Exit 2095 - Black Mastic On 16	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17B 131908189-0036	East Exit 2095 - Black Mastic On 16	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18A 131908189-0037	South East On Column 2077 - Beige Compound	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
19A 131908189-0038	Southeast Conference Room 2077 - Black Inner Window Glazing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19B 131908189-0039	Southeast Conference Room 2077 - Black Inner Window Glazing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20A 131908189-0040	Custodian Closet 2071 - White 12"x12" With Gray Streaks Floor Tile	White Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
21A 131908189-0041	Custodian Closet 2071 - Black Mastic On 20	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
22A 131908189-0042	Exterior Rear At 2077 - Gray Door Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22B 131908189-0043	Exterior Front At 2095 - Gray Door Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23A 131908189-0044	Exterior Rear Entrance 2077 - Gray Cement Ceiling Panel	Gray Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
24A 131908189-0045	Mechanical Room 2069 - Beige Joint Compound	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
25A 131908189-0046	Mechanical Room 2069 - Brown Baseboard Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25B 131908189-0047	Mechanical Room 2069 - Brown Baseboard Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected



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Analyst(s)

Kevin McKenzie (30)

Kevin Pine (15)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, Maine Bulk Asbestos LB-0039

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Initial report from: 10/25/2019 16:31:50



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Received Date: 11/08/2019 11:10 AM

Analysis Date: 11/12/2019

Collected Date: 11/07/2019

Project: 19416/ 2071 Roosevelt St; Springfield, MA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
26A 131908649-0001	Roof South - Brown Fiberboard	Brown Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
26B 131908649-0002	Roof North - Brown Fiberboard	Brown Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (Other)	None Detected
27A 131908649-0003	Roof Northeast on Metal Vent - White/Black Caulking/Tar	White/Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
27B 131908649-0004	Roof Northeast on Metal Vent - White/Black Caulking/Tar	White/Black Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
28A 131908649-0005	Roof Middle - White/Black Skylight Caulking/Tar	White/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28B 131908649-0006	Roof Northwest - White/Black Skylight Caulking/Tar	White/Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
29A 131908649-0007	Roof West - Black Duct Tar Coating	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
29B 131908649-0008	Roof West - Black Duct Tar Coating				Positive Stop (Not Analyzed)
30A 131908649-0009	Kindred at Home - White 2'x2' Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (Other)	None Detected
30B 131908649-0010	Kindred at Home - White 2'x2' Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (Other)	None Detected
31A 131908649-0011	Kindred at Home - Lobby - Beige Joint Compound	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
32A 131908649-0012	Kindred at Home - White 12"x12" Floor Tile (U.C.)	White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
33A 131908649-0013	Kindred at Home - Black Mastic	Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
34A 131908649-0014	East Outer Wall - Tan w/ Green Wall Insulation Glue (Fiberglass)	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34B 131908649-0015	East at Middle Exit - Tan w/ Green Wall Insulation Glue (Fiberglass)	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Initial report from: 11/12/2019 11:55:41



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EMSL Order: 131908649

Customer ID: SMIT50B

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
35A 131908649-0016	East Outer Wall - Red Wall Insulation Glue (Foam)	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35B 131908649-0017	East - Red Wall Insulation Glue (Foam)	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
36A 131908649-0018	Training Room at East Exit - Pink 12"x12" Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
36B 131908649-0019	Training Room at East Exit - Pink 12"x12" Floor Tile	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
37A 131908649-0020	Training Room at East Exit - Black Mastic on 36	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
37B 131908649-0021	Training Room at East Exit - Black Mastic on 36	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
38A 131908649-0022	Training Room at East Exit - Red Exhaust Seam Glue	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39A 131908649-0023	East - Gray Cement Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39B 131908649-0024	East - Gray Cement Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39C 131908649-0025	East - Gray Cement Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
40A 131908649-0026	Southeast Cubicle Area - Beige Joint Compound	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
41A 131908649-0027	Southeast Work Room - Tan 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
41B 131908649-0028	Southeast Work Room - Tan 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42A 131908649-0029	Southeast Work Room - Black/Yellow/Gray Mastic on 41	Gray/Black/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42B 131908649-0030	Southeast Work Room - Black/Yellow/Gray Mastic on 41	Gray/Black/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43A 131908649-0031	West - White Fire Door Insulation	White Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
43B 131908649-0032	West - White Fire Door Insulation	White Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

<http://www.EMSL.com> / bostonlab@emsl.com

EMSL Order: 131908649

Customer ID: SMIT50B

Customer PO:

Project ID:

Analyst(s)

Elizabeth Stutts (31)

Steve Grise, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-139, VT AL998919, Maine Bulk Asbestos LB-0039

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Initial report from: 11/12/2019 11:55:41



EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

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EMSL Order: 131908189

Customer ID: SMIT50

Customer PO: 19416

Project ID:

Attention: Ted Sherry
Smith & Wessel Associates, Inc
515 Wildlife Glen
Bradenton, FL 34209

Phone: (978) 994-3643

Fax: (978) 346-7265

Received Date: 10/23/2019 4:05 PM

Analysis Date: 10/29/2019

Collected Date: 10/22/2019

Project: 2071 Roosevelt St Springfield MA- 19416

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
01A 131908189-0001	Exterior Front At 2073 - Gray Window Caulking	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
03A 131908189-0006	GrayExterior Rear At 2071 - Gray Expansion Joint Caulking	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
12A 131908189-0025	North End Office 2095 - Black Mastic On 11	Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
17A 131908189-0035	East Exit 2095 - Black Mastic On 16	Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
25A 131908189-0046	Mechanical Room 2069 - Brown Baseboard Mastic	Brown Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Matthew Conley (5)

Steve Grise, Laboratory Manager
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA

Initial report from: 10/29/2019 12:24:35

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APPENDIX B

Results of Testing for Lead Based Paint (LBP)

Results of Testing for Lead Based Paint 2071 Roosevelt Street, Springfield, MA				
Location	Substrate	Color	Component	Result mg/cm ²
Kindred Company				
	Sheetrock	Yellow	Walls	<0.1
	Metal	White	Door frames	<0.1
	Sheetrock	Yellow	Walls	<0.1
Vacant Space				
Throughout	Sheetrock	Yellow	Walls	<0.1
	Metal	Gray	Door frames	<0.1
	Wood	Gray	Door	<0.1
	Wood	Gray	Window sill	<0.1
	Metal	Gray	Corrugated deck	<0.1
	Metal	Red	Joists	<0.1
	Metal	Red	Structural beam	<0.1
	Metal	Black	Joists	<0.1
	Ceramic	White	Bathroom wall (north)	0.2
	Metal	Gray/beige	Bathroom stalls	<0.1
	Metal	Brown	Door frames	<0.1
	Cinderblock	Yellow/white	Wall	<0.1
	Metal	Maroon	Door	<0.1
	Plaster	White	Upper wall	<0.1
Women's room south	Ceramic	Yellow	Wall	3.3
	Cinderblock	White	Wall	<0.1
Men's room	Ceramic	Yellow	Wall	4.9
	Cinderblock	White	Wall	<0.1
	Metal	Brown	Door	<0.1
Future Health				
	Cinderblock	White	Wall	<0.1
	Metal	Red	Structural beam	<0.1
	Sheetrock	Yellow/white/brown	Walls	<0.1
	Metal	Gray	Door frames	<0.1

Results of Testing for Lead Based Paint 2071 Roosevelt Street, Springfield, MA				
Location	Substrate	Color	Component	Result mg/cm ²
Exterior				
	Transite	White/brown	Ceiling	<0.1
	Wood	Brown	Entrance overhang siding	<0.1
	Metal	Brown	Door frame	<0.1
	Metal	Yellow	Safety pole	<0.1
	Concrete	Gray	Entry walkway	<0.1

Note: All testing was conducted using a NITON XLS-303A. Limit of detection = 0.1 mg/cm².

APPENDIX C

PCB Laboratory Analytical Results



New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 9J23002

Client Project: 19416 - 2071 Roosevelt St, Springfield, MA

Report Date: 04-November-2019

Prepared for:

Ted Sherry
Smith & Wessel Associates
8808 17th Avenue Circle NW
Bradenton, FL 34209

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 10/23/19. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 9J23002. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
9J23002-01	01	Solid (Misc)	10/22/2019	10/23/2019
9J23002-02	02	Solid (Misc)	10/22/2019	10/23/2019
9J23002-03	03	Solid (Misc)	10/22/2019	10/23/2019
9J23002-04	04	Solid (Misc)	10/22/2019	10/23/2019
9J23002-05	05	Solid (Misc)	10/22/2019	10/23/2019
9J23002-06	06	Solid (Misc)	10/22/2019	10/23/2019

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

01 (Lab Number: 9J23002-01)

Analysis

PCBs

Method

EPA 8082A

02 (Lab Number: 9J23002-02)

Analysis

PCBs

Method

EPA 8082A

03 (Lab Number: 9J23002-03)

Analysis

PCBs

Method

EPA 8082A

04 (Lab Number: 9J23002-04)

Analysis

PCBs

Method

EPA 8082A

05 (Lab Number: 9J23002-05)

Analysis

PCBs

Method

EPA 8082A

06 (Lab Number: 9J23002-06)

Analysis

PCBs

Method

EPA 8082A

Method References

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances. Samples were extracted via EPA 3540C - Soxhlet.

PCB: The samples 23002-01 "Gray exterior window caulking; Front at 2073 Roosevelt" and 23002-05 "Gray expansion joint caulking; North exterior at 2095 Roosevelt" were reported with surrogates outside method parameters due to matrix interference.

Results: Polychlorinated Biphenyls (PCBs)

Sample: 01

Lab Number: 9J23002-01 (Non-soil solid, as received basis)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1254	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		163	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		163	ug/kg	10/29/19	11/01/19
PCBs (Total)	ND		163	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	4.78%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	20.3%	30-105	10/29/19	11/01/19

Results: Polychlorinated Biphenyls (PCBs)

Sample: 02

Lab Number: 9J23002-02 (Non-soil solid, as received basis)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1254	249		165	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		165	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		165	ug/kg	10/29/19	11/01/19
PCBs (Total)	249		165	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	50.4%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	56.4%	30-105	10/29/19	11/01/19

Results: Polychlorinated Biphenyls (PCBs)

Sample: 03

Lab Number: 9J23002-03 (Non-soil solid, as received basis)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1254	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		187	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		187	ug/kg	10/29/19	11/01/19
PCBs (Total)	ND		187	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	55.8%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	65.1%	30-105	10/29/19	11/01/19

Results: Polychlorinated Biphenyls (PCBs)

Sample: 04

Lab Number: 9J23002-04 (Non-soil solid, as received basis)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1254	421		172	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		172	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		172	ug/kg	10/29/19	11/01/19
PCBs (Total)	421		172	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	46.6%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	56.1%	30-105	10/29/19	11/01/19

Results: Polychlorinated Biphenyls (PCBs)**Sample: 05****Lab Number: 9J23002-05 (Non-soil solid, as received basis)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1254	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		175	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		175	ug/kg	10/29/19	11/01/19
PCBs (Total)	ND		175	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	33.7%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	46.2%	30-105	10/29/19	11/01/19

Results: Polychlorinated Biphenyls (PCBs)

Sample: 06

Lab Number: 9J23002-06 (Non-soil solid, as received basis)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1221	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1232	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1242	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1248	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1254	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1260	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1262	ND		179	ug/kg	10/29/19	11/01/19
Aroclor-1268	ND		179	ug/kg	10/29/19	11/01/19
PCBs (Total)	ND		179	ug/kg	10/29/19	11/01/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	58.9%	30-100	10/29/19	11/01/19
Decachlorobiphenyl (DCBP)	71.4%	30-105	10/29/19	11/01/19

Quality Control

Polychlorinated Biphenyls (PCBs)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9J1260 - EPA 3540C										
Blank (B9J1260-BLK1)					Prepared: 10/29/19 Analyzed: 11/01/19					
Aroclor-1016	ND		200	ug/kg						
Aroclor-1221	ND		200	ug/kg						
Aroclor-1232	ND		200	ug/kg						
Aroclor-1242	ND		200	ug/kg						
Aroclor-1248	ND		200	ug/kg						
Aroclor-1254	ND		200	ug/kg						
Aroclor-1260	ND		200	ug/kg						
Aroclor-1262	ND		200	ug/kg						
Aroclor-1268	ND		200	ug/kg						
PCBs (Total)	ND		200	ug/kg						
<i>Surrogate: 2,4,5,6-Tetrachloro-m-xylene (TCMX)</i>			52.2	ug/kg	80.0		65.3	30-100		
<i>Surrogate: Decachlorobiphenyl (DCBP)</i>			59.0	ug/kg	80.0		73.7	30-105		
LCS (B9J1260-BS1)					Prepared: 10/29/19 Analyzed: 11/01/19					
Aroclor-1016	774		200	ug/kg	1000		77.4	64-112		
Aroclor-1260	820		200	ug/kg	1000		82.0	59.4-124		
<i>Surrogate: 2,4,5,6-Tetrachloro-m-xylene (TCMX)</i>			55.1	ug/kg	80.0		68.8	30-100		
<i>Surrogate: Decachlorobiphenyl (DCBP)</i>			63.8	ug/kg	80.0		79.8	30-105		
LCS Dup (B9J1260-BSD1)					Prepared: 10/29/19 Analyzed: 11/01/19					
Aroclor-1016	786		200	ug/kg	1000		78.6	64-112	1.58	20
Aroclor-1260	806		200	ug/kg	1000		80.6	59.4-124	1.72	20
<i>Surrogate: 2,4,5,6-Tetrachloro-m-xylene (TCMX)</i>			57.8	ug/kg	80.0		72.2	30-100		
<i>Surrogate: Decachlorobiphenyl (DCBP)</i>			60.4	ug/kg	80.0		75.4	30-105		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.

Project #: 19416

Project Location: Springfield, MA

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
9J23002

 Matrices: ☐ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☒ Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	MassDEP VPH (GC/PID/FID) CAM IV A ☐	8082 PCB CAM V A ☒	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP VPH (GC/MS) CAM IV C ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	VPH, EPH, APH, and TO-15 only a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☒ Yes ☐ No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☒ Yes ☐ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☒ Yes ☐ No ¹

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

 Signature: Richard Warila

 Position: Laboratory Director

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 Printed Name: Richard Warila

 Date: 11/4/2019

APPENDIX D

Site Photographs

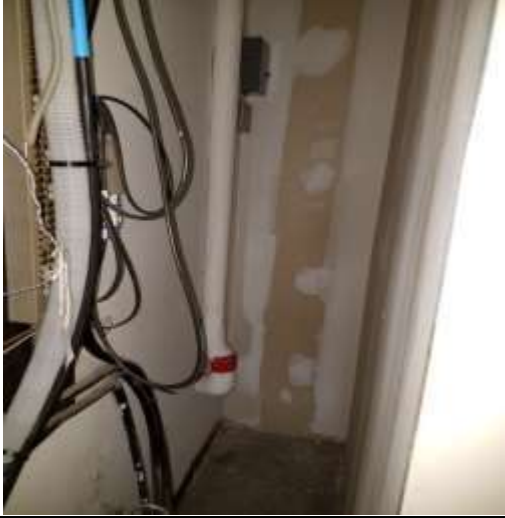
2071 Roosevelt Street – Springfield, MA

	
Newer floor tile in cafeteria	North office area floor tile beneath carpet
	
Asbestos pipe fittings in cafeteria plenum	Janitor closet 2071, asbestos floor tile/mastic
	
Janitor closet 2071, asbestos pipe fittings	Asbestos ceiling panels at rear entrance

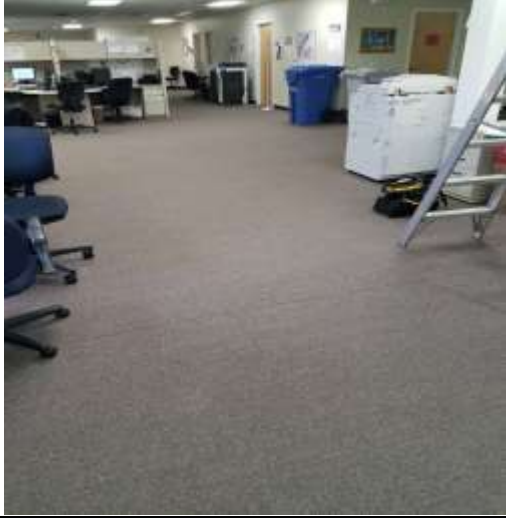
2071 Roosevelt Street – Springfield, MA

	
Wall expansion, not asbestos	Tar mop on duct, asbestos
	
Skylights	Exhaust seam
	
View of roof	View of roof

2071 Roosevelt Street – Springfield, MA

	
S/E mechanical room, asbestos fitting	Asbestos fitting in vacant cafeteria plenum
	
Kindred space	Kindred plenum, fittings & JC, asbestos
	
Kindred plenum, tan JC, asbestos	Kindred cafeteria

2071 Roosevelt Street – Springfield, MA

	
Kindred space, asbestos fitting	Kindred floor tile/mastic under carpet, asbestos
	
Kindred open carpeted area	Kindred rear room with double layer floor tile
	
Kindred rear hall with double layer floor tile	Kindred rear room with double layer floor tile

2071 Roosevelt Street – Springfield, MA

	
Vacant space glue streaks, not asbestos	Vacant space glue streaks, not asbestos
	
S/E vacant space with asbestos JC	Lead paint glaze in bathroom ceramic wall
	
Asbestos mud on drain hanger	Newer gypsum and JC in vacant section

2071 Roosevelt Street – Springfield, MA

	
Red seam on exhaust, not asbestos	Plaster at east overhang area, not asbestos
	
S/E vacant section outer wall, asbestos JC	S/E vacant section new floor tile
	
Double layer gypsum/JC in S/E kick out hall	New gypsum double layer

2071 Roosevelt Street – Springfield, MA

	
Red insulation sealer glue, not asbestos	Vacant space cubical area
	
New gypsum board in plenum	Old gypsum, tan JC and original wall stud

COMMERCIAL PROPERTY RECORD CARD

CITY OF SPRINGFIELD

Situs: 2071 ROOSEVELT AV

Map ID: 103600413

Class: General Office

Card: 1 of 1

Assessed Owner

SAREMI LLP
2073 ROOSEVELT AVE
SPRINGFIELD MA 01104

General Information

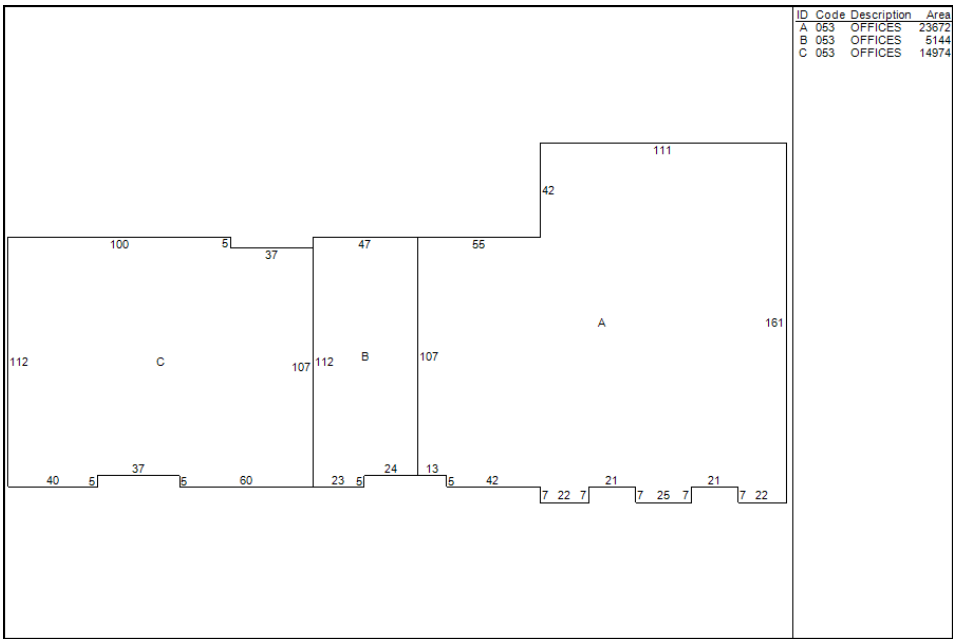
Living Units:
Neighborhood: 307
Alternate:
Zoning: I1
Class: I

Photo



[Open enlarged photo](#)

Diagram



[Click to view enlarged version](#)

Land Information					
Type		Size	Influence Factors	Influence %	Value
PRIMARY	ACREAGE	4.3100			332,320
Total Acres: 4.3100					

Assessment Information					
	Assessed	Appraised	Cost	Income	Market
Land	332,300	332,300	332,300	332,300	0
Building	3,397,600	3,397,600	2,892,600	3,397,600	0
Total	3,729,900	3,729,900	3,224,900	3,729,900	0

Value Flag: INCOME APPROACH

Manual Override Reason:

Entrance Information				Permit Information				
Date	ID	Entry Code	Source	Date Issued	Number	Price	Purpose	% Complete
2010-08-10	3	ESTIMATED FOR MISC REASON	OTHER	2008-10-08	805057	40,000	GARAGE	100
2009-05-05	3	NOT AT HOME	OTHER					

Sales/Ownership History						
Transfer Date	Price	Type	Validity	Deed Ref.	Deed Type	Grantee
2008-02-01	3,500,000	LAND + BLDG	VALID SALE		WARRANTY DEED	SAREMI LLP
1987-05-11	1,400,000	LAND + BLDG		L122 / L005		FONTAINE LESTER E & ROBERT HC

Building Information		Building Other Features						
Year Built/Eff Year: 1970 /		Line	Type	+/-	Meas1	Meas2	# Stops	Ident Units
Building #: 1		1	CANOPY ROOF/SLAB		897	1		1
Structure Type: 2 OFFICE BLDG LR 1-4ST AVG		1	STORE FRONT/AV MET F		55	1		1
		2	CANOPY ROOF/SLAB		518	1		1
Identical Units: 1		2	OVERHEAD DR-ROLL STL		64	1		1
Total Units:		2	STORE FRONT/AV MET F		24	1		1
Grade: B		3	CANOPY ROOF/SLAB		518	1		2
# Covered Parking:		3	OVERHEAD DR-ROLL STL		64	1		1
# Uncovered Parking:		3	STORE FRONT/AV MET F		37	1		1
DBA:								

Interior / Exterior Information								
Line	Level From	-To	Int Fin	Area	Perim	Use Type	Wall Height	Ext Walls
1	01	01	100	23,397	575	OFFICES	12	Brick Veneer
2	01	01	100	5,144	318	OFFICES	12	Brick Veneer
3	01	01	100	14,974	401	OFFICES	12	Brick Veneer
Construction	Partitions	Heating	Cooling	Plumbing	Physical	Functional		
FIRE RESISTANT	NORMAL	HOT AIR	CENTRAL	NORMAL	5	4		
FIRE RESISTANT	NORMAL	HOT AIR	CENTRAL	NORMAL	5	4		
FIRE RESISTANT	NORMAL	HOT AIR	CENTRAL	NORMAL	5	4		

Interior/Exterior Valuation Detail						
Line	Area	Use Type	% Good	% Complete		Value/RCNLD
1	23,397	OFFICES	53			1,464,330
2	5,144	OFFICES	53			357,210
3	14,974	OFFICES	53			948,590

Outbuilding Data

Line	Type	Yr Blt	Meas1	Meas2	Qty	Area	Grade	Condition
1	PAVING ASPHALT PARKING	1970	0	0	1.00	100,000		NORMAL (Comm)
2	GARAGE - FIN ATTIC	2008	0	0	1.00	864		GOOD (Comm)

Income Detail (Includes all Buildings on Parcel)

Use Grp	Mod Type	Inc Mod	Model Description	Units	Net Area	Income Rate	Econ Adjust	Potential Gross Income
04	S	300	LOW RISE OFFICE	0	43,515	12.50	130	707,119

Vac Model	Vac Adj	Additional Income	Effective Gross Income	Expense Model %	Expense Adj %	Expense Adj	Other Expenses	Total Expenses	Net Operating Income
20		0	565,695	40			226,278	226,278	339,417

Building Cost Detail - Building 1 of 1

Income Summary (Includes all Buildings on Parcel)

Total Gross Bldg Area	43,515	Total Net Income	339,417
Replace Cost New Less Depr	2,770,130	Capitalization Rate	0.0910
% Complete	100	Sub Total	3,729,860
# Identical Units	1	Residual Land Value	0
Econ Conditions Factor		Final Income Value	3,729,860
Final Building Value	2,770,130	Total Gross Rent Area	43,515
Value per SF	63.66	Total Gross Building Area	43,515

FY 2019 data: property descriptions as of June 30, 2018, and values as of Jan 1, 2018