01/29/16
Re: 1508-6-Exec Summary.doc

The following is a written summary of our findings regarding the Central School building in Arlington, MA. The focus of this report is on those parts of the building that are likely to be retained for adaptive reuse as CoA offices, a senior center and HHS offices. A more detailed spread sheet of architectural findings and an engineering analysis is attached to this report.

The existing building is comprised of an original 19th C. structure, a major 1984 renovation and subsequent minor modifications. The first two floors are to be altered for reuse as a senior center and various town offices. The upper 3 floors are to continue to be rented as office space.

Building materials
The brick façade appears to be in good condition. The exterior windows are 1984 wood sash replacement windows with double pane glazing. Upper floors have interior storm sash that helps insulate the rooms significantly. However, lower floor windows do not have interior storm sash and were not sealed well in the rough opening around them, making them under-performing for energy conservation reasons. The slate roofing is currently functional, but is due for the routine 5 year repair and maintenance service, particularly at flashing areas.

The interior materials include vinyl composition tile (VCT) flooring in much of the building, wood flooring in the main hall and quarry tile flooring in the kitchen. Some of the VCT is in reasonable condition and may be reused. The wood flooring is in good condition and should be reused. The quarry tile flooring has cracked to such an extent that it violates the Board of Health requirements for kitchen use. Any planned expansion or relocation of the kitchen will necessitate all new quarry tile or porcelain tile flooring. Rest rooms have ceramic tile (CT) flooring and wall finish that is intact, but will be damaged by new fixture layouts that are likely to follow this report. New CT floor and wall finishes will be recommended in all the rest rooms.

The ceilings are generally painted Gypsum Wall Board (GWB), most of which are deteriorated. Significant patching and repair is recommended, particularly in areas where new partitions are proposed. There are stud walls that were added later along the northeast egress corridor on the ground floor. Recessed lighting in the ceilings is generally outdated and should be replaced with new energy efficient LED lighting. An energy audit is recommended to be undertaken in subsequent studies to detail the extent of replacement to be contemplated.

Building envelope
The existing building envelope would not be energy code compliant if it were to be built today. The walls have no insulation and no thermal breaks. The roof has no

insulation. The floors have no insulation under them, nor a thermal break. The foundation wall is un-insulated. These existing conditions are allowed to remain unaltered as part of the proposed Alterations, Level 2 per Code. However, it is not recommended that the town maintain a building condition that is so expensive to operate.

Structural report
Most of the existing building consists of a wood frame floor over a 2'-4" high crawl space. The exterior walls consist of stone foundations and brick upper walls. Assuming that only Level 2 work is contemplated, no structural reinforcing is required for either gravity or lateral loads. The wood frame roof strength needs to be verified for added snow loads that result from increased insulation in the attic, if that is contemplated. It is possible to add photovoltaic solar collector roof panels, but the historical character of the slate roofed building may be compromised by such a venture.

Site report
The proposed building footprint is that of about 9,100 SF and the entire site includes parking for 70 cars, as well as a drop–off area and service loading with a capacity of 4 spaces. Satellite parking at the Masonic Temple across the street has 17 spaces. The shape of the lot and grading present a fairly simple design and construction approach. Vehicular accessibility to the site will remain off the main access road from Maple Street that faces onto a residential neighborhood. As a result recreation and open space amenities, such as a wheelchair accessible patio &/or deck at the north side of the property may be made accessible by removing the abandoned underground oil tanks and finishing that area in combination with a proposed egress ramp from a new exit from stair number 1 at the ground level.

Mechanical, Electrical, Plumbing & Fire Protection
Mechanical systems are operating well beyond their expected service life. All new HVAC systems are recommended. Electrical distribution panels need to be replaced. Lighting systems do not meet current energy code and should be replaced. Plumbing service lines and domestic hot water appear to be in good condition and may be reused because they are fairly recent installations. However, all water closets and lavatories are to be replaced. New plumbing fixture counts shall be calculated based on proposed new room layouts and capacities. Existing Fire Protection system of sprinkler head layouts will be modified for the proposed new room layouts, using existing water service lines. It is assumed that no fire alarm system upgrade is required. A more detailed report by Norian/Siani Engineering, Inc. is attached to this summary.

Building Code report
The IEBC (2009) Code report classifies the building as type IIIB, Unprotected combustible/non-combustible construction. The proposed use is a Mixed Use of B, Business, A-3, Assembly and S-2, Storage. The existing height of the building exceeds the maximum height of 2 stories for A-3 use. Further discussions are needed

19 Bishop Allen Drive
Cambridge, MA 02139
Tel: (617) 441-7955
Fax: (617) 441-0978
admin@sterlingarchitects.com
www.sterlingarchitects.com
Sterling Associates Incorporated Architects

with the local Building Inspector to accept this condition, given that the A-3 Assembly Use is only on the 2nd floor. However, the typical floor area is well within 9,500 SF limit required by Code for the proposed use. The proposed design will be Alterations-Level 2. The proposed building will have an excess of egress exit numbers and widths required by Code. However, both fire egress stairs open into lobbies where only one of the two is allowed by Code. At least one of them must lead directly outside. The proposed design extends stair number one (East stair) to the ground floor and directly outside by means of a new fire rated corridor. This new egress door would lead back up 54" to existing outside grade by means of a new ADA compliant wheelchair ramp.

Energy Code report
The stretch code does not apply to renovations to commercial buildings. The energy code for alterations to existing buildings only requires that existing wall cavities and attic spaces be insulated to the full depth of their existing capacity. As there is no wall cavity, no insulation is required there. However, it is prudent for the city to insulate the building foundation, attic roof and ground floor to the extent that there may be at least a 20 year or less payback in energy savings for that added investment.

Architectural Access Code Report
Full compliance with AAB regulations will be required for all public spaces. The ground floor, north exit is required to be accessible in order to qualify for Federal funding. It is assumed that the first floor west entrance is allowed to remain non-compliant with AAB regulations due to a historical preservation waiver.

Zoning
All zoning issues, including lot size, setbacks, open space requirements and building height, appear to be either compliant or accepted as existing non-conforming conditions in prior permitting. As a result, the site may be developed without the need of any zoning variances, using the existing footprint of about 9,100 SF. However, the proposed kitchen addition to the building may trigger site plan review as well as other permitting requirements such as the Historical Commission, Board of Health and Fire Department review.

Environmental assessment
On January 21, the building was inspected and found it may contain a variety of hazardous materials to be remediated, including vinyl asbestos tile (VAT), lead paint and PCB's. A separate study should be prepared directly for the town.

Development Schedule
Current plans for development may be to bid for construction in the fall of 2016.

ARLINGTON SENIOR CENTER BUILDING EXISTING CONDITIONS REPORT

		DESCRIPTORS	RECOMMENDED ACTIONS						
ITEM	COMPONENTS		IMMEDIATE	REPLACE	ADD	PREVENTIVE MAINT.	QUANTITY	UNIT PRICE	COST
SUBSTRUCTURE									
FOUNDATIONS									
FOUNDATION WALL	STONE	Uninsulated wall & crawl space							
WATER-PROOFING/ FOUNDATION	Unknown	•Calcification on brick and stone below grade •Evidence of dampness, mildew, and related problems rotted and settling floor near front. •Heavy efluorescence @ right side storage room				Exterior Application of Silicone to consider			
BASEMENT CONSTRUCTION									
BASEMENT SLAB @ mech. room		•Uninsulated slab, no thermal break. •Portion of slab is uneven.							

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	NOTES:	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
SHELL											
SUPER STRUCTURE											
GROUND FLOOR FRAMING	2X12"s	Wood deck built up 2'-4" above crawl space Slab on grade @ Basement		Uninsulated floor no thermal break / 2x12 Framing is settling, causing finishes on the ground floor to crack							
EXTERIOR WALLS ABOVE GRADE	BRICK EXTERIOR/ STONE SILLS	1.Brick 2. Stone		•Areas of Brick require repointing •Evidence of general moisture penetration on masonry.	Clean, repoint and seal at base. Prepare and repoint masonry, about 10% of surface area						
EXTERIOR SOFFITS	Wood	Exterior soffits			Eliminate all voids above ceilings to obviate need for sprinklers above ceiling.	Soffit system has no air/vapor barrier add insulation in all soffits. See below					
INSULATION	•Foundation wall •Wall •Soffit •Roof			•Assume un-insulated wall w/ air space to plaster fin. •No wall insulation exists •Un-insulated Soffits •Insulated Roof	• Perimeter wall-prepare + insulate <u>below grade</u> 2' •None Proposed •Add New •None Proposed		Provide new selective insulation per economic return on investment				

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	COVERAGE/ MATERIALS	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
EXTERIOR WINDOWS											
WINDOWS	Existing wood sash-double pane			•No insulation around frames •10% of Windows in the building have broken seals	Further Study Needed	Replace Damaged Window Panes					
				•2nd Floor: Western exposure windows have interior storms/plexiglass							
STORM/SCREEN WINDOWS							Interior Storm Sash to Ground Floor Windows & 2nd Fl. E, N, S				
EXTERIOR ENTRY DOORS											
NORTH (Into Basement)					ADA wheelchair access needed						
SOUTH	Commercial Aluminum/glass, 2 sets:	(1) Exterior hydraulic swing doors, no weatherstripping, air entry bad.		(2) Interior Vestibule Sliding doors good condition	Repair Automatic Doors						
EAST	Wood Swing Doors										
WEST		Brass + Plate Glass Exterior + Oak Swing Interior doors		ADA wheelchair access not provided, doors do not seal	Replace Existing Pairs of Glass Doors						
ROOFING											
ROOF STRUCTURE		1. Wood Frame					Review seismic requirements				
ROOF COVERINGS		1.Sloped-Slate					Repair Damaged areas with 5-yr review				
		2. Copper Detailing & Flashing									
ROOF INSULATION/VENTS	Assume R19 1984 code compliance Vents are likely blocked							Roof area vents			
HATCHES	N/A										
CHIMNEY	Existing chimney used by boiler				Study Option of New Heating System						

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	COVERAGE/MATERIALS	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
INTERIORS											
STAIRCASES											
1 East Stair	Stl Pan + Conc	GWB walls		GOOD							
2 West Stair	Stl Pan + Conc	GWB walls		GOOD							
3 Main Stair	WD-Oak	GWB walls		GOOD							
4 West Entrance	Stone			GOOD							
5 East Entrance + Ramp	WD-Oak			GOOD							
G1 Boiler Room Stair	WD			GOOD							
G2 E Basement Stair	WD			GOOD							
G3 NE Ground Egress Stair	Concrete				Further study needed		ADA Ramp				
G4 Kitchen Stair	Steel			GOOD							
A1 Attic Stair East	Steel			GOOD							
A2 Attic Stair East	Steel			GOOD							
A3 Attic Stair Central	Steel			GOOD							
A4 Attic Stair West	Steel			GOOD							
Elevator	CMU + GWB Finish			GOOD							
Lift from 3rd to 4th	GWB										
CEILINGS											
GROUND		GWB		Few areas of water damage/ Stains		Patch and Paint					
FIRST FLOOR		GWB									
SECOND FLOOR		GWB									
THIRD FLOOR		GWB									
FOURTH FLOOR		GWB		Water damage @ two skylights & @ brick interface Past water damage on north wall; roof was subsequently repaired	Further study needed						

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	**COMPONENTS**	**TYPES**	**SIZE**	**NOTES:**	**IMMEDIATE**	**REPLACE**	**ADD**	**PM**	**QUANTITY**	**UNIT PRICE**	**COST**
FLOOR FINISH											
BASEMENT	Unfinished concrete/ VAT	Unfinished concrete/ VAT		Mech./Storage- may have asbestos tile	HAZMAT remediation						
CENTRAL		VCT									
WEST		Carpet Tile									
EAST		VCT + Carpet									
GROUND FLOOR	2"x12" framing	Carpet/VCT/Tile (restrooms) Carpet Tiles		Oak entry needs refinishing	Further study settling structure						
FIRST		Wood-Oak Wood under carpet VCT Tile restrooms									
SECOND		Carpet									
THIRD		Carpet									
FOURTH		Carpet									
FLOOR FRAMING											
FIRST FLR FRAMING				Floor squeeks - possible structural damage	Further study needed						
SECOND FLR FRAMING											
THIRD FLR FRAMING											
FOURTH FLR FRAMING											
ATTIC FRAMING											
WALLS											
GROUND		GWB/ Wood Base		Settling gap wall to ceiling and floor to walls	Further study needed						
FIRST FLOOR		GWB/ Wood Base									
SECOND FLOOR		GWB/ Wood Base									
THIRD FLOOR		GWB/ Wood Base/Brick									
FOURTH FLOOR		GWB/ Wood Base/Brick		water damage from skylights on brick							

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	NOTES:	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
INTERIOR DOORS											
GROUND		Solid Core Painted / Full Glaze Oak Clear									
FIRST FLOOR		Metal/Solid Oak Panel/ Glass									
SECOND FLOOR		Solid Core Painted / Full Glaze Oak Clear									
THIRD FLOOR		Solid Core Painted / Full Glaze Oak Clear									
FOURTH FLOOR		Solid Core Painted / Full Glaze Oak Clear									
BATHROOMS											
Ground Floor East Mens	Tile Floors, GWB Walls+ Ceiling	Counters, Sinks, Paritions, Ventilation all poor condition			DEMO						
Ground Floor East Womens	Tile Floors, GWB Walls+ Ceiling	Counters, Sinks, Paritions, Ventilation all poor condition			DEMO						
Ground Floor SW	VCT Floors, GWB Walls + Ceiling	Good Condition									
Ground Floor SE	VCT Floors, GWB Walls + Ceiling	Good Condition									
First Floor Mens	Tile Floors, GWB Walls + Ceiling	Sinks, Partition, Floor counters DEMO		Floors have wax buildup/ Bad Ventilation							
First Floor Womens					Add New Exhaust Fans						
Second Floor Mens	Tile Floors + Base, GWB walls + Ceiling	Excellent Condition									
Second Floor Womens											
Third Floor Mens											
Third Floor Womens											
MAIN Kitchen											
REFRIGERATOR	VULCAN				SALVAGE						
DISHWASHER	(2)				DEMO						
KITCHEN STOVE	ELECTRIC				DEMO						
GARBAGE DISPOSAL	None										
KITCHEN CABINETS	WD + P. Lam				DEMO						
COUNTERTOP	P. Lam				DEMO						
SINK	Residential				DEMO						
GND FLR E KITCHEN	DEMO										
GND FLR W KITCHEN	WORKING										
1ST FLR E KITCHEN	WORKING										
MISCELLANEOUS											
SECURITY SYSTEM	Existing 5 Cameras & doors w/alarms						Update security & alarm system				

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	NOTES:	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
SITE											
SITE IMPROVEMENTS											
DROP OFF	No covered walkway						Add covered walkway				
PARKING CAPACITY	70 cars distributed across all agencies				Further Study Needed						
PEDESTRIAN PAVING	Walkways to connect to drop off and adjacent walks-Needs re-grading	Wheelchair accessible grading / Brick pavers									
DUMPSTER PAD	Verify 4" Concrete slab on grade.										
FENCING	N/A	No privacy screening for dumpster		5' HT min. reccomended							
BUILT IMPROVEMENTS	Terraces and patio (paving/ planter/ box/ benches), signage, street furniture Needs improvement					Back terrace (660 SF) brick, patio, signage, street furniture (6 benches), bar-b-que and trellis (450 sf) Front roof canopy @ drop off					
NATURAL IMPROVEMENTS	Landscaping / planting in garden.				Further Study Needed		Healing Garden?				

		DESCRIPTORS			RECOMMENDED ACTIONS						
ITEM	COMPONENTS	TYPES	SIZE	COVERAGE/MATERIALS	IMMEDIATE	REPLACE	ADD	PM	QUANTITY	UNIT PRICE	COST
ZONING CONSTRAINTS											
PARKING											
TENANT CONSIDERATIONS FOR UPGRADES											
ALTERNATIVE DEVELOPMENT OPTIONS											

NORIAN / SIANI ENGINEERING, INC.
43 Bradford Street, Concord, MA 01742-2972 • Tel: 781-398-2250 • Fax: 781-398-2280

January 29, 2016

--- DRAFT ---

Bill Sterling, Principal
Sterling Associates, Inc.
19 Bishop Allen Drive
Cambridge, MA 02139

RE: ARLINGTON SENIOR CENTER RENOVATIONS
MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION SYSTEMS
EXISTING CONDITIONS & RECOMMENDATIONS

Dear Bill,

Thank you to Christine, Fred, and you for the helpful guided tours and stream of helpful information. There are challenges and opportunities ahead. Given the long term nature of this buildings functions our recommendations primarily follow the logic of lowest life cycle cost over 30 years or more. We expect the building will still be serving the community for well longer and therefore benefits from lowest costs over time.

The following describes the mechanical systems, their existing conditions and recommendations for system replacements and or renovations to match intended architectural renovations. We assume the renovation project is to be completed in a single construction project in order to minimize costs, time and disruption. This focus of this schematic/study is on systems that will serve building areas for the senior center which occupies only a portion of the lower two floors of the building and also provides some related information on central building systems.

Existing mechanical, plumbing and most electrical systems are all from the 1984 renovation. The majority of the fire alarm and fire suppression systems were installed in 1984 but it appears that additional work on both was completed more recently. Both the suppression and alarm systems are in good condition and can accommodate the renovations.

AREA OF RENOVATION

Total floor area to be renovated is approximately 18,200 SqFt all on the first two floors. The project may also include a expanded kitchen (commercial standards) adding 600 SqFt.

CODE

At this time we have understood that the level of renovations will not trigger a requirement to bring the rest of the building up to current code standards. However, all new systems installed to serve the renovated areas will have to meet current codes.

FIRE PROTECTION

Existing Condition

The majority of the existing fire suppression system was installed in 1984. The fire suppression water service entry and primary valving appears to have been replaced along with the potable

water meter within the last 10 years. The system was designed to NFPA-13 standards at the time which are largely identical to current code.

Fire Protection System Renovations

1. A new sprinkler head layout will need to be provided of all areas of renovation. The existing system adequately supports this work. Approximately 40% of the piping in these renovated areas can be retained.
2. Commercial Kitchen: Fire suppression in kitchen hood with alarm tie-ins.

PLUMBING

Existing Condition

A new potable water service was provided to the building along with meters and valving during the last 10 years. Domestic hot water (DHW) is provided by a central DHW system and new gas fired tank in the basement including recirculation. The system appears in good condition. Bathrooms are not all fully accessible and there is one new bathroom set of fixtures recently installed that could be considered for reuse.

Plumbing System Renovations

The following are recommended system replacements and renovations to match the architectural renovations:

1. Provide all new plumbing fixtures in bathrooms and kitchens; all to match or exceed code required low flow requirements. Tank type toilets. Floor drains for bathrooms with 2 or more toilets or urinals.
2. Connect to existing waste, vent, and potable piping systems.
3. Insulate all DHW piping old or new in the renovated areas.
4. Balance existing DHW recirculation system to accommodate changes.
5. Commercial Kitchen:
    - Grease trap
    - Triple bowl sink
    - Hand wash sink
    - Floor drains (2)
    - Under sink commercial dishwasher with temperature booster

MECHANICAL

Existing Condition

A pair of gas fired cast iron sectional hot water boilers in the basement provide heat to two primary systems: a multi-zone perimeter baseboard heating system and hot water serving heating coils in most but not all of the air handling units. Large and small air handling units in interior closets and the basement mechanical room provide air conditioning and in many cases heating as well. The air handling units each include fans to move air through the duct systems to the spaces and also include refrigerant systems and coils that are connected by a central piping loop to the new outdoor fluid cooler where the heat of the building is ejected to the atmosphere in summer.

Piping systems throughout the building are mostly from the 1984 renovation and in fair condition. HVAC controls throughout the building are provided by a pneumatic system with some digital thermostats now being used for zone control.

Mechanical System Renovations

We assume the thermal envelope of the building is not being improved by the adding insulation to the exterior walls therefore the basic system capacity of existing systems matches what will be required. A significant exception is the requirement for additional fresh air ventilation top meet current codes.

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The following are recommended system replacements and renovations to match the architectural renovations:

1. All of the air handling units serving the renovation areas are past normally expected life spans and should be replaced with equipment sized to serve the renovated areas. Units are fluid cooled A/C units each equipped with hydronic heating coil, refrigerant system, fan section, MERV-12 filters, and connection to cooling hydronic loop, heating hydronic loop, fresh air supply and DDC controls.
   - Quantity of new AHU's = 8.
   - Total cooling capacity = 42 Tons.
2. Duct work, diffusers and grilles should be replaced in all areas.
3. Current ventilation codes must be used to size fresh air requirements and some additional ventilation will need to be provided as compared to the existing systems.
   - All new ventilation duct work to connect existing fresh air supply in basement to all new AHU's; 2000 cfm.
   - New matching exhaust system with exhaust blower and duct work; 2000 cfm
4. Reuse the majority of the existing perimeter heating system.
   - Provide all new zone valves and control.
   - Provide all new drain valves and vents.
   - Rework the majority of baseboard enclosure to match new plans and provide end caps and splice plates where needed; 70% of existing.
   - Add baseboard enclosure and end caps where needed; 30% of existing
5. Central piping systems will need some limited work to adapt to the new AHU's serving the renovated senior center including all new valves, sensors and flexible connections.
   - Quantity of new AHU's = 8.
6. Replacing the entire set of automatic temperature and ventilation controls for the building with a new direct digital controls (DDC) system is strongly recommended and would logically be done at the time of installing new HVAC for the senior center so that the control systems are compatible and integrated. This will provide significant energy savings for the building as a whole.
7. The existing boilers are both very inefficient. We recommend that the older boiler be removed from the boiler room and that a new high efficiency condensing mode boiler be added leaving the newer cast iron unit in place. The new boiler would be controlled using a fixed lead approach so most of the gas used will be burned at the higher efficiency. Sized

the new boiler at around 80% of total design load building requirement This will provide significant energy savings for the building as a whole; likely at least 15% savings on gas for space heat.

- Demo existing boiler.
- Gas condensing mode boiler: 800,000 BTU/Hr.
- New close boiler piping, valves, hangers, and insulation.
- Side wall venting and combustion air intake.

8. Commercial Kitchen:
   - Range hood
   - Externally mounted exhaust fan
   - Make-up air system with fan duct work and exterior termination and interior grilles.
   - Welded grease duct to externally mounted exhaust fan

ELECTRICAL

Existing Condition

Power Most of the electrical in the building dates from the 1984 renovation. Unfortunately the primary equipment manufacturer used in that work was Federal Pacific Electric Company (FPE). This company is no longer in business and is notorious for poorly performing equipment. In most cases no new work within these panels, load centers, disconnects can be performed without replacing the FPE equipment as well.

Lighting Most of the light fixtures in the building date from the 1984 renovation. Improvements in lamp type have been made to many of the fixtures. Lighting systems do not all meet current efficiency and code standards. Emergency lighting is provided by heads powered by remote battery packs and battery/light units.

Fire Alarm The fire alarm (FA) system is a Class-A addressable system with dial-out, and an enunciator panel in the entry lobby. The majority of the FA system was installed in 1984 and serves all areas. Additionally the fire alarm system panels have had an upgrade and a new addressable Fire Alarm Control Panel (FACP) has been installed.

Security & IT Security systems appear new and in excellent condition. Local IT was not investigated.

Electrical System Renovations

We assume the thermal envelope of the building is not being improved by the adding insulation to the exterior walls therefore the basic system capacity of existing systems matches what will be required. A significant exception is the requirement for additional fresh air ventilation top meet current codes.

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The following are recommended system replacements and renovations to match the architectural renovations:

1. All new power systems: load centers, circuiting, connections to mechanical and lighting equipment, outlets and IT systems

2. All new lighting based on LED fixtures, occupancy controlled switching, and daylight controls for perimeter rooms.
3. Reuse the battery powered emergency lighting with some additional units.
4. Reuse the existing fire alarm system and devices for all renovated areas, add additional units where required.
5. Retain existing security system which likely requires some attention to existing wiring that needs to be protected during construction.
6. Due to the safety concerns regarding the FPE equipment and assuming there has been no previous testing, we recommend that the main switch gear and load centers in the Boiler room be investigated using thermal imagery and for any new panel feeders consider replacing the FPE panel that they come from
7. The building can greatly benefit from all new outside lighting fixtures: each entry, (8) wall packs for sides, drive and back of building.

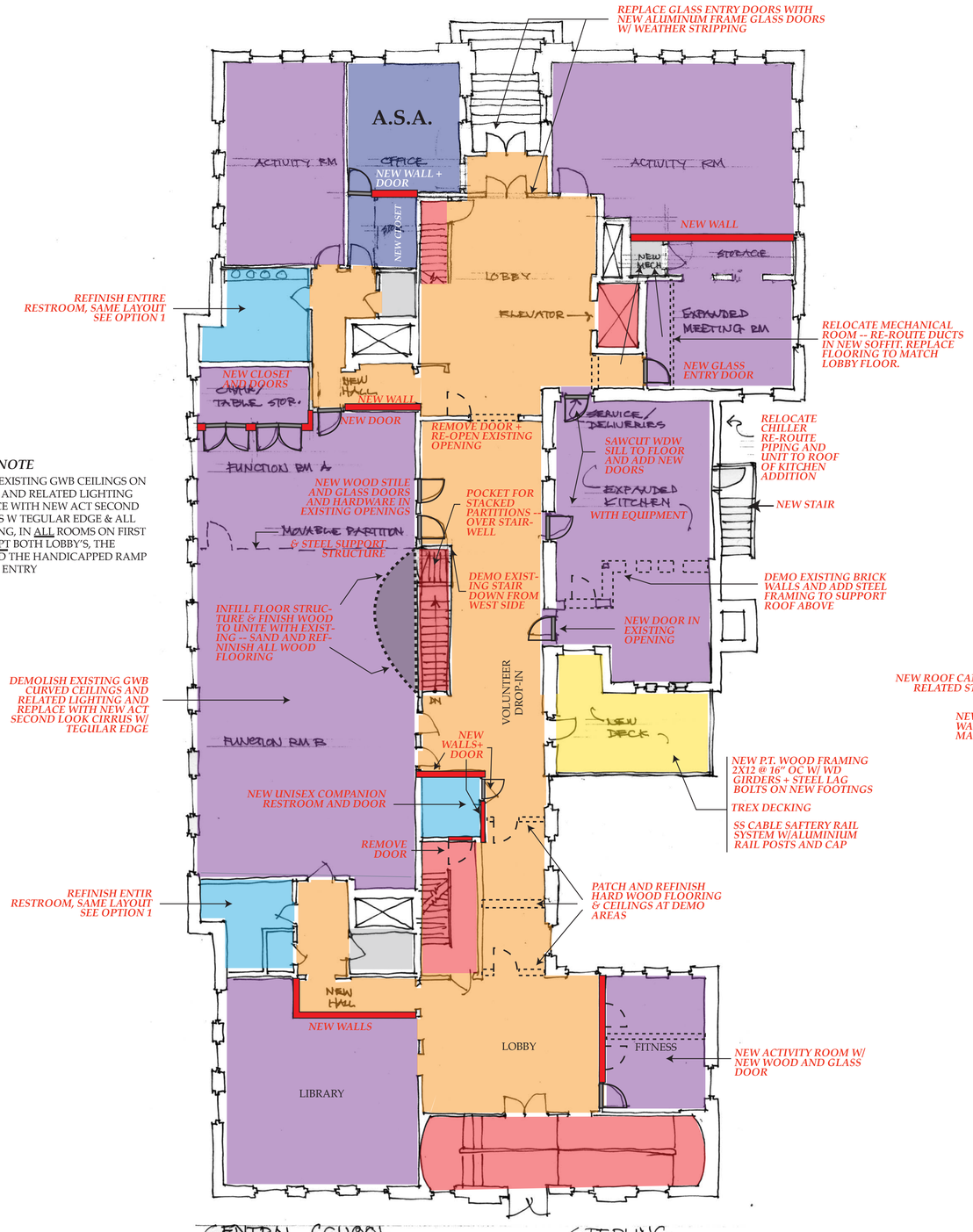
Please let us know of any questions you may have.

Sincerely,
for NORIAN/SIANI ENGINEERING, INC.

Sergio F. Siani

Sergio F. Siani, LEED AP

SFS/klk



REPLACE GLASS ENTRY DOORS WITH NEW ALUMINUM FRAME GLASS DOORS W/ WEATHER STRIPPING

REFINISH ENTIRE RESTROOM, SAME LAYOUT SEE OPTION 1

RELOCATE MECHANICAL ROOM -- RE-ROUTE DUCTS IN NEW SOFFIT. REPLACE FLOORING TO MATCH LOBBY FLOOR.

RELOCATE CHILLER RE-ROUTE PIPING AND UNIT TO ROOF OF KITCHEN ADDITION

NEW STAIR

DEMO EXISTING BRICK WALLS AND ADD STEEL FRAMING TO SUPPORT ROOF ABOVE

NEW DOOR IN EXISTING OPENING

DEMOLISH EXISTING GWB CURVED CEILINGS AND RELATED LIGHTING AND REPLACE WITH NEW ACT SECOND LOOK CIRRUS W/ TEGULAR EDGE

NEW P.T. WOOD FRAMING 2X12 @ 16" OC W/ WD GIRDERS + STEEL LAG BOLTS ON NEW FOOTINGS

TREX DECKING

SS CABLE SAFTERY RAIL SYSTEM W/ALUMINIUM RAIL POSTS AND CAP

PATCH AND REFINISH HARD WOOD FLOORING & CEILINGS AT DEMO AREAS

REFINISH ENTIR RESTROOM, SAME LAYOUT SEE OPTION 1

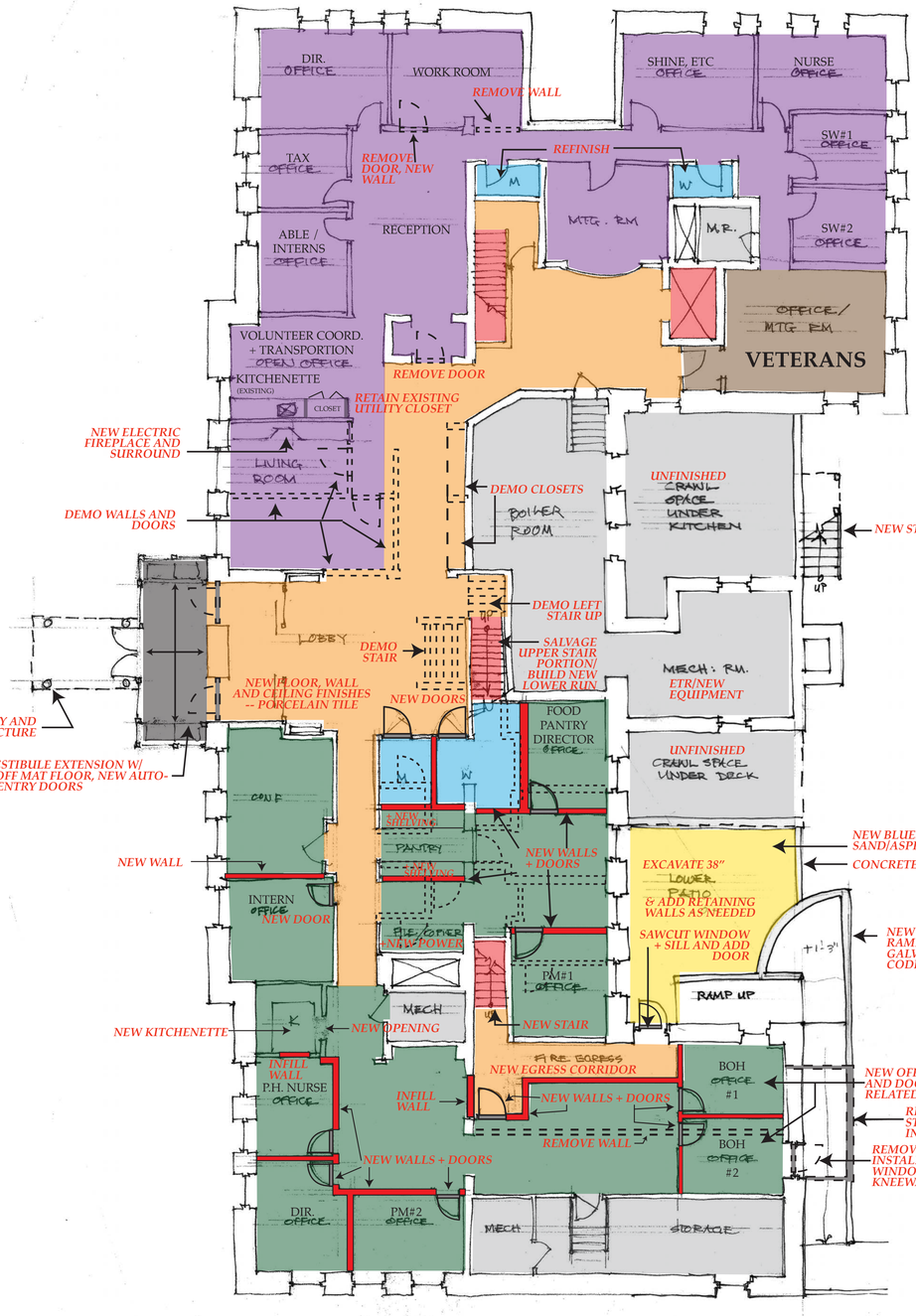
NEW ACTIVITY ROOM W/ NEW WOOD AND GLASS DOOR

CENTRAL SCHOOL
FIRST FLOOR PLAN OPTION 2
1/8" = 1'-0"

STERLING ASSOCIATES
1/29/16

GENERAL NOTE

•DEMOLISH EXISTING GWB CEILINGS ON FIRST FLOOR AND RELATED LIGHTING AND REPLACE WITH NEW ACT SECOND LOOK CIRRUS W TEGULAR EDGE & ALL NEW LIGHTING, IN ALL ROOMS ON FIRST FLOOR EXCEPT BOTH LOBBY'S, THE LIBRARY, AND THE HANDICAPPED RAMP AT THE EAST ENTRY



REMOVE WALL

REFINISH

REMOVE DOOR, NEW WALL

REMOVE DOOR

RETAIN EXISTING UTILITY CLOSET

NEW ELECTRIC FIREPLACE AND SURROUND

DEMO WALLS AND DOORS

DEMO CLOSETS

NEW STAIR

DEMO LEFT STAIR UP

DEMO STAIR

SALVAGE UPPER STAIR PORTION/ BUILD NEW LOWER RUN

NEW FLOOR, WALL AND CEILING FINISHES -- PORCELAIN TILE

NEW DOORS

NEW ROOF CANOPY AND RELATED STRUCTURE

NEW VESTIBULE EXTENSION W/ WALK-OFF MAT FLOOR, NEW AUTO-MATIC ENTRY DOORS

NEW WALL

NEW WALLS + DOORS

NEW DOOR

NEW BLUESTONE PAVERS ON SAND/ASPHALT MIX

CONCRETE RETAINING WALL

EXCAVATE 38" LOWER PATIO & ADD RETAINING WALLS AS NEEDED

SAWCUT WINDOW + SILL AND ADD DOOR

NEW RAILING AND CONC. RAMP TO GRADE WITH PTD GALV. STEEL RAILS PER CODE.

NEW KITCHENETTE

NEW OPENING

NEW EGRESS CORRIDOR

NEW OFFICES, WALLS AND DOORS WITH RELATED ELECTRICAL

REMOVE EXISTING STEPS AND RETAIN-ING WALLS

REMOVE DOOR INSTALL NEW WINDOW & CONC. KNEEWALL

CENTRAL SCHOOL
GROUND FLOOR PLAN
1/8" = 1'-0"

STERLING ASSOCIATES
1/28/2016

GENERAL NOTES

•ALL NEW FLOOR FINISHES -- CARPET AND REPAINT ALL OFFICES.
•NEW A.C.T. CEILINGS IN ALL ROOMS OF FIRST FLOOR EXCEPT SERVICE ROOMS.
•REPLACE ALL LIGHTS WITH NEW LED LTG
•PROVIDE NEW DUPLEX OUTLETS AND DATA LINES AT ALL NEW OFFICES
•ADD EXHAUST VENTILATION TO ALL BATHROOMS, PER CODE.
•SEE EXISTING CONDITIONS REPORT FOR WINDOWS:
1. REPLACE SASHES IN UNITS WITH FAILED SEALS.
2. ADD INTERIOR STORM SASHES TO ALL GROUND FLOOR UNITS
3. PRICE REMOVAL OF INTERIOR WOOD WINDOW TRIM, SEAL R.O. AND RE-INSTALL TRIM ON ALL WINDOWS.
•DEMOLISH EXISTING GWB CEILINGS ON GROUND FLOOR AND RELATED LIGHTING AND REPLACE WITH NEW ACT SECOND LOOK CIRRUS W TEGULAR EDGE & ALL NEW LIGHTING.

OPTION 2

CONSIDER OPTION 2 KITCHEN SIZE & LOCATION WITH RELOCATED CHILLER TO BE AN ALTERNATE PRICE. ALL OTHER DESIGN DECISIONS THE SAME

KEY

DEMO

NEW WALL CONSTRUCTION

NEW DOOR

A.M. Fogarty
& Assoc., Inc.
175 Derby St., Suite 5, Hingham, MA 02043
TEL: (781) 749-7272 • FAX: (781) 740-2652
ptim@amfogarty.com
"Construction Cost Consultants"

Study
Arlington Central School Senior Center
Arlington, MA

April 11, 2016

GRAND SUMMARY

RENOVATION GF & 1ST FLOOR - OPTION # 2				$3,130,846
UPPER FLOOR SHELL & CORE UPGRADES:				
2ND FLOOR	7,812	GSF	$50.00	$390,600
3RD FLOOR W/1443 GSF DBL VOLUM	7,812	GSF	$50.00	$390,600
MEZZANINE	4,524	GSF	$50.00	$226,200
TENANT IMPROVEMENTS				NIC
TOTAL DIRECT COST				$4,138,246
GENERAL CONDITIONS		7.5%		$310,368
GENERAL REQUIREMENTS		2.5%		$111,215
P&P BOND AND INSURANCE		1.85%		$84,357
PERMIT		0%	waived	$0
FEE		4%		$185,767
DESIGN CONTINGENCY		10.0%		$464,419
ESCALATION (winter 2017)		3.5%		$185,303
TOTAL CONSTRUCTION COST				$5,479,676

ALTERNATE:

OPTION NO. 1 - REVISED KITCHEN LAYOUT	($140,439)

PROJECT:	Arlington Central School Senior Center	NO. OF SQ. FT.:	16,574
LOCATION:	Arlington, MA	COST PER SQ. FT.:	$188.90
CLIENT:	Sterling Associates, Inc	*Incl general reno 15,624 GSF	
DATE:	11-Apr-16	*Incl 190 GSF entry addition	
		*Incl 760 GSF kitchen addition & reno	

Project No: 16044

RENOVATION -OPTION #

SUMMARY

Ground & First floors

	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
DIVISION 02 - EXISTING CONDITIONS			
022820 ASBESTOS REMEDIATION	10,000	0%	0.60
024116 BUILDING DEMOLITION	66,532	2%	4.01
DIVISION 03 - CONCRETE			
033000 CAST IN PLACE CONCRETE	43,868	1%	2.65
DIVISION 04 - MASONRY			
042000 MASONRY*	29,210	1%	1.76
DIVISION 05 - METALS			
055000 MISCELLANEOUS & ORNAMENTAL IRON*	90,274	3%	5.45
051200 STRUCTURAL STEEL FRAMING	46,650	1%	2.81
053100 STEEL DECKING	7,620	0%	0.46
054000 COLD FORMED METAL FRAMING	6,379	0%	0.38
DIVISION 06 - WOOD, PLASTICS & COMPOSITES			
061000 ROUGH CARPENTRY	20,880	1%	1.26
062000 FINISH CARPENTRY	100,182	3%	6.04
DIVISION 07 - THERMAL & MOISTURE PROTECTION			
071000 AIR/VAPOR BARRIER, WATERPROOF. & CA	10,564	0%	0.64
075400 ROOFING AND FLASHING*	26,781	1%	1.62
072100 BUILDING INSULATION	65,017	2%	3.92
074213 SIDING AND TRIM	14,900	0%	0.90
DIVISION 08 - OPENINGS			
085213 WINDOWS	117,500	4%	7.09
082500 DOOR OPENING ASSEMBLIES	158,615	5%	9.57
083313 COILING COUNTER DOORS	3,500	0%	0.21
087100 FINISH HARDWARE	10,500	0%	0.63
088000 GLASS AND GLAZING*	0	0%	0.00
089000 EXTERIOR LOUVERS	1,500	0%	0.09
DIVISION 09 - FINISHES			
092500 GYPSUM WALLBOARD SYSTEMS	132,598	4%	8.00
093000 CERAMIC TILE *	94,003	3%	5.67
096519 RESILIENT FLOORING*	19,388	1%	1.17

	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
099100 PAINTING*	52,722	2%	3.18
095100 ACOUSTICAL CEILINGS*	83,150	3%	5.02
095900 WOOD FLOORING	16,704	1%	1.01
096800 CARPETING	41,545	1%	2.51
098433 ACOUSTICAL WALL PANELS	43,200	1%	2.61
DIVISION 10 - SPECIALTIES			
101000 OPERABLE PARTITION	32,200	1%	1.94
101400 SIGNAGE	10,815	0%	0.65
102113 TOILET COMPARTMENTS	12,650	0%	0.76
102800 TOILET ACCESSORIES	11,085	0%	0.67
109000 MISCELLANEOUS SPECIALTIES	9,250	0%	0.56
DIVISION 11 - EQUIPMENT			
119000 EQUIPMENT	106,200	3%	6.41
DIVISION 12 - FURNISHINGS			
129000 FURNISHINGS	20,250	1%	1.22
DIVISION 14 - CONVEYING EQUIPMENT			
142400 ELEVATORS & LIFTS*	0	0%	0.00
DIVISION 21 - FIRE SUPPRESSION			
210000 FIRE SUPPRESSION*	63,234	2%	3.82
DIVISION 22 - PLUMBING			
220000 PLUMBING*	261,800	8%	15.80
DIVISION 23 - HVAC			
230000 HVAC*	670,460	21%	40.45
DIVISION 26 - ELECTRICAL			
260000 ELECTRICAL*	507,720	16%	30.63
DIVISION 31 - EARTHWORK			
310000 EARTHWORK	20,000	1%	1.21
311000 SITE PREPARATION & CLEARING	12,500	0%	0.75
DIVISION 32 - EXTERIOR IMPROVEMENTS			
323100 SITE IMPROVEMENTS	76,900	2%	4.64
328000 IRRIGATION	0	0%	0.00

	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
329000 LANDSCAPING	2,000	0%	0.12
DIVISION 33 - UTILITIES			
330000 UTILITIES	0	0%	0.00
DIRECT COST	3,130,846	100%	188.90

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DIVISION 02 - EXISTING CONDITIONS				
022820 ASBESTOS REMEDIATION				
Hazardous Waste Removal - Allow	1	LS	10,000.00	10,000
				10,000
024116 BUILDING DEMOLITION				
Building Exterior Remove Existing:				
Wind. @ new GF entry	1	EA	150.00	150
Masonry sill @ new GF entry	1	LOC	300.00	300
GF door @ new ramp	1	EA	150.00	150
GF main entry dr & frame - sgl	2	EA	225.00	450
1st Flr E & W entry dr & frame - dbl	2	EA	275.00	550
1st Flr W entry storefront	48	SF	7.00	336
Wind @ kit addition	2	EA	250.00	500
Masonry sill @ new kit dr	2	LOC	300.00	600
Misc. ext. demolition	1	LS	1,000.00	1,000
Building Interior Remove Existing:				
Misc. int. demolition	15,624	GSF	4.00	62,496
				66,532
DIVISION 03 - CONCRETE				
033000 CAST IN PLACE CONCRETE				
GF South Entry Addition:				
Wall ftg 2' x 1' x 36'	3	CY	350.00	1,050
Frost wall 1' x 4' x 36'	6	CY	850.00	4,675
5" Slab on grade	190	SF	8.00	1,520
Tie fnd to exist	2	LOC	500.00	1,000
GF South Entry Canopy:				
Canopy col ftg & pier	4	EA	775.00	3,100

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Kitchen Addition:				
Wall ftg 2' x 1' x 21'	1.5	CY	350.00	525
Foundation wall 1' x 8' x 21'	6.5	CY	980.00	6,370
Metal deck fill	490	SF	6.00	2,940
Egress stair ftg	3	EA	400.00	1,200
4" Concrete stoop	30	SF	8.00	240
Crawl space - Slab on grade	490	SF	6.00	2,940
Tie fnd to exist	2	LOC	500.00	1,000
Misc. Foundations:				
GF North Entry Ramp	W /Site Improvements			
Ground Floor Patio	W /Site Improvements			
1st Floor Deck	W /Site Improvements			
Infill GF slab @ plumbing trenching	1,000	SF	12.00	12,000
Metal Deck Fill @ Infill Opening:				
Function rm opening	76	SF	8.00	608
Infill stair opening		NIC		
Infill shaft opening		NIC		
Equipment pads	1	LS	2,500.00	2,500
New Metal Pan Stair fill:				
Main lobby GF - 1st	1	FLT	1,200.00	1,200
East lobby GF - 1st	1	FLT	1,000.00	1,000
				43,868

DIVISION 04 - MASONRY

042000 MASONRY*

New Interior CMU:		NIC		
Cut & patch Interior masonry	1	LS	10,000.00	10,000
Exterior Masonry Restoration		NIC		
New Masonry Veneer:				
GF South Entry Addition		NIC		
GF South Entry Canopy col base	4	EA	750.00	3,000
GF North Entry Ramp		NIC		
Kitchen Addition 12' H	254	SF	40.00	10,160
Masonry flashing	1	LS	800.00	800

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Cut in Repair Ext Masonry Openings:				
GF wind - new ext. dr open.	1	LOC	1,250.00	1,250
1st Flr wind - new kit open	2	LOC	1,250.00	2,500
Infill Ext Masonry Openings - Complete:				
GF Dr - new wind	1	LOC	1,500.00	1,500

				29,210

DIVISION 05 - METALS

055000 MISCELLANEOUS & ORNAMENTAL IRON*

New Stair & Rails :				
Main lobby GF - 1st	1	FLT	35,000.00	35,000
East lobby GF - 1st	1	FLT	20,000.00	20,000
Upgrade Int Stair:				
West lobby GF- 1st	1	FLT	5,000.00	5,000
East lobby 1st - upper levels		NIC		
Mechanical room stairs		Remain		
New Galv. Ext Stair & Rails:				
Kitchen egress	1	FLT	9,500.00	9,500
Op partition support frame	28	LF	150.00	4,200
Misc. int metals	16,574	GSF	1.00	16,574

				90,274

051200 STRUCTURAL STEEL FRAMING

Shore & Frame new Int wall opening:				
Kitchen @ wall rem'l	26	LF	225.00	5,850
1st flr @ new stair open	1	LOC	3,500.00	3,500
1st Floor Frame:				
Kitchen Addition	490	GSF	20.00	9,800
Infill function rm opening	76	SF	25.00	1,900
Infill stair opening		NIC		
Infill shaft opening		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Flat Roof Frame:				
GF South Entry Addition	190	GSF	20.00	3,800
GF South Entry Canopy	100	GSF	20.00	2,000
Kitchen Addition	490	GSF	20.00	9,800
Seismic upgrades		NIC		
Dunnage & spring isol @ relocated RTU	1	LS	10,000.00	10,000
				46,650
053100 STEEL DECKING				
Floor Deck:				
Kitchen Addition	490	GSF	6.00	2,940
Roof Deck:				
GF South Entry Addition	190	GSF	6.00	1,140
GF South Entry Canopy	100	GSF	6.00	600
Kitchen Addition	490	GSF	6.00	2,940
				7,620
054000 COLD FORMED METAL FRAMING				
Ext. wall frame :				
GF South Entry Addition - 20%	72	SF	12.00	864
Kitchen Addition - 100%	254	SF	12.00	3,048
Ext. wall 1/2" Dens Glass Sheathing	326	SF	4.50	1,467
3" Soffit frame				
GF South Entry Canopy	100	GSF	10.00	1,000
:				
				6,379
DIVISION 06 - WOOD, PLASTICS & COMPOSITES				
061000 ROUGH CARPENTRY				
Addition Exterior Wall Blocking:				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
GF South Entry Addition - 20%	72	SF	1.50	108
Kitchen Addition - 100%	254	SF	1.50	381
Addition Roof Blocking:				
Fascia	83	LF	12.00	996
Base flashing	97	LF	12.00	1,164
Interior blocking	16,574	GSF	0.35	5,801
Misc. rough carpentry	16,574	GSF	0.75	12,431
				20,880

062000 FINISH CARPENTRY

New Interior Wood Trim:				
MDF wall base	500	LF	5.50	2,750
Corridor & lobby chair rail	250	LF	35.00	8,750
Door trim		NIC		
Misc interior trim	16,574	GSF	0.50	8,287
Restore Interior Wood Trim:				
Window Sill and apron		W / 085000		
Window trim		W / 085000		
Misc interior trim	1	LS	5,000.00	5,000
Casework:				
Vestibule bench (2 EA)	15	LF	400.00	6,000
Lav Counter top (2 EA)	23	LF	265.00	6,095
Main lobby and entry	1	LS	5,000.00	5,000
Kitchenette (2 loc)	30	LF	500.00	15,000
West lobby wd shelving	1	LS	1,500.00	1,500
East lobby wd shelving	1	LS	1,500.00	1,500
COA service center	6	LF	300.00	1,800
Reception desk		NIC		
Office counters	1	LS	15,000.00	15,000
Activity room casework	2	EA	5,000.00	10,000
Fireplace surround -complete	1	EA	3,500.00	3,500
Misc. casework allowance	1	LS	10,000.00	10,000

*Kitchen casework is included w/ 119000

100,182

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DIVISION 07 - THERMAL & MOISTURE PROTECTION				
071000 AIR/VAPOR BARRIER, WATERPROOF. & CAULKING*				
Additions:				
Bit foundation dampproofing	228	SF	2.00	456
Ext joint sealants	1	LS	2,500.00	2,500
Addition applied air & vapor barrier	326	SF	5.50	1,793
Control/expansion joints	1	LS	2,500.00	2,500
Int. joint sealants	16,574	GSF	0.20	3,315
				10,564
075400 ROOFING AND FLASHING*				
Membrane Roof System:				
GF South Entry Addition	190	SF	22.00	4,180
GF South Entry Canopy	100	SF	22.00	2,200
Kitchen Addition	490	SF	22.00	10,780
Membrane flashing	1	LS	1,500.00	1,500
Fascia GF South Entry Addition	30	LF	35.00	1,050
Base flashing GF South Entry Addition	22	LF	28.00	616
Fascia GF South Entry Canopy	32	LF	35.00	1,120
Fascia Kitchen Addition	21	LF	35.00	735
Base flashing Kitchen Addition	75	LF	28.00	2,100
Misc flashing	1	LS	2,500.00	2,500
				26,781
072100 BUILDING INSULATION				
Additions:				
Rigid Slab Insul	190	SF	3.50	665
2" Rigid Insul. - foundation	228	SF	3.00	684
Kitchen crawl space clg	490	SF	3.50	1,715
Ext wall insul	326	SF	3.00	978
Renovation :				
Spray foam 6" @ brick fnd wall 3' H	1,662	SF	10.00	16,620
*Foundation wall with limited crawl space access				
Ceiling of top floor	7,812	SF	5.00	39,060
Kitchen roof-addition	W / roofing sys			

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Kitchen roof	270	SF	5.00	1,350
West entry soffit	126	SF	5.00	630
Fire stopping	16,574	GSF	0.20	3,315
*Excludes reinsulating exterior envelope				
				65,017

074213 SIDING AND TRIM

GF South Entry:				
Wall cladding 20%	72	SF	75.00	5,400
Canopy col cladding	4	EA	1,500.00	6,000
Canopy soffit panel	100	SF	35.00	3,500
				14,900

DIVISION 08 - OPENINGS

085213 WINDOWS

Existing Windows:				
Replace unit w/ failed seal -allow	15	EA	1,700.00	25,500
GF int storm sash	31	EA	750.00	23,250
1st int storm sash (NIC W elev)	33	EA	750.00	24,750
Remove int wd trim, seal & reinstall trim	72	EA	500.00	36,000
Misc repairs -allow	1	LS	5,000.00	5,000
New Windows:				
Kitchen Addition	1	EA	1,500.00	1,500
GF North Entry Ramp	1	EA	1,500.00	1,500
				117,500

082500 DOOR OPENING ASSEMBLIES

New Exterior Alum Door, Frame, Hdw, Glass & Glazing:				
GF South Entry Addition - dbl	1	EA	8,000.00	8,000
GF North Entry Ramp -sgl	1	EA	4,000.00	4,000
1st Floor West Entry - dbl	1	EA	8,000.00	8,000
1st Floor Deck-sgl	1	EA	4,000.00	4,000
1st Floor East Entry - dbl	1	EA	8,000.00	8,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
New Exterior Storefront System:				
GF South Entry Addition	246	SF	85.00	20,910
GF North Entry Ramp		NIC		
1st Floor West Entry	48	SF	85.00	4,080
New Interior Alum Door, Frame, Hdw, Glass & Glazing:				
GF South Entry Addition - sgl	2	EA	3,500.00	7,000
1st Floor West Entry - dbl	1	EA	7,200.00	7,200
1st Floor East Entry - dbl	1	EA	7,200.00	7,200
New Interior Storefront System:				
GF South Entry Addition	12	SF	80.00	960
1st Floor West Entry	63	SF	80.00	5,040
New Exterior HM Door, Frame, Hdw, Glass & Glazing:				
Kitchen - sgl	1	EA	1,600.00	1,600
New Interior Door, Frame, Hdw, Glass & Glazing - Allow:				
Mechanical - sgl	2	EA	1,050.00	2,100
Stair - sgl	3	EA	2,750.00	8,250
Toilet room sgl user	3	EA	1,000.00	3,000
Toilet room multi user	4	EA	1,000.00	4,000
Program space - sgl	8	EA	1,250.00	10,000
Program space - dbl	1	EA	2,500.00	2,500
Kitchen - sgl	3	EA	1,100.00	3,300
Office suite - sgl	4	EA	1,250.00	5,000
Office - sgl	8	EA	1,250.00	10,000
Storage - sgl	4	EA	950.00	3,800
Storage - dbl	4	EA	1,400.00	5,600
HM Window and Sidelight Frame, Glass & Glazing - Allow:				
Door sidelight (1'-6" x 7' - 10 EA)	105	SF	75.00	7,875
Window (6'x4' H - 4 EA)	96	SF	75.00	7,200
				158,615
083313 COILING COUNTER DOORS				
Allow:				
Kitchen	1	EA	3,500.00	3,500
Office		NIC		
				3,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
087100 FINISH HARDWARE				
Card Reader		NIC		
Hardware upgrades	1	LS	5,000.00	5,000
Entry auto opener:				
GF South Entry Addition	1	LOC	5,500.00	5,500
GF North Entry Ramp		NIC		
*Balance of finish hardware is included in 082500 & 085000				
				10,500
088000 GLASS AND GLAZING*				
*Included in 082500 & 085000				
				0
089000 EXTERIOR LOUVERS				
Misc louvers	1	LS	1,500.00	1,500
				1,500
DIVISION 09 - FINISHES				
092500 GYPSUM WALLBOARD SYSTEMS				
12' Partitions - allow:				
1 Lyr 5/8 @ new ext wall	326	SF	2.20	717
1 Lyr 5/8 @ exist ext wall		NIC		
Furr & gyp @ existing		NIC		
1 Hr stair	500	SF	16.00	8,000
Shaft wall	500	SF	15.00	7,500
Chase wall	500	SF	8.50	4,250
Typ interior	4,696	SF	10.50	49,308
Misc patching	15,624	GSF	1.00	15,624

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Gyp Ceilings:				
GF South Entry Addition	190	GSF	9.50	1,805
Reno Gyp ceiling - 25%	3,906	SF	9.50	37,107
Allow for Soffit and Transition	16,574	GSF	0.50	8,287
*Gypsum wallboard includes tape & joint compound finish				
				132,598
093000 CERAMIC TILE *				
Toilet Room (7 EA) :				
Porcelain floor tile - thin set	532	SF	20.00	10,640
Porcelain wall tile - 4'	960	SF	18.00	17,280
Marble threshold	7	LOC	65.00	455
Waterproofing membrane /crack sup.	532	SF	8.00	4,256
*Thin set installation				
Kitchen:				
Quarry Tile - this set	760	SF	18.00	13,680
QT Base	200	LF	9.50	1,900
Wall tile 4'	750	SF	18.00	13,500
Porcelain Tile:				
GF main lobby & vestibule	730	SF	23.00	16,790
West lobby	674	SF	23.00	15,502
				94,003
096519 RESILIENT FLOORING*				
Floor prep	244	SF	1.50	366
Fitness rm flooring - cushioned vinyl	244	SF	13.00	3,172
Resilient Base	1	LS	3,500.00	3,500
*Excludes mechanical / storage rm flooring - shown grey				
Wood Stair Finishes -New Stair & Rails :				
Main lobby GF - 1st	1	FLT	7,500.00	7,500
East lobby GF - 1st	1	FLT	3,500.00	3,500
Rubber Stair Finishes- Upgrade Int Stair:				
West lobby GF- 1st	1	FLT	1,350.00	1,350
East lobby 1st - upper levels		NIC		
Mechanical room stairs		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
				19,388
099100 PAINTING*				
Exterior Painting @ :				
GF South Entry Addition	1	LS	1,000.00	1,000
GF South Entry Canopy	1	LS	1,000.00	1,000
Kitchen Addition	1	LS	1,000.00	1,000
*Excludes general exterior upgrades				
Interior painting - walls and ceiling	16,574	SF	3.00	49,722
Vinyl graphics & wall covering		NIC		
				52,722
095100 ACOUSTICAL CEILINGS*				
Acoustical Ceiling Systems:				
Kitchen 24 x 24 x 2/4" ACT	760	SF	6.00	4,560
Reno 24 x 24 x 3/4" ACT - 75%	11,718	SF	5.00	58,590
Allow for feature and specialty ceilings	1	LS	20,000.00	20,000
				83,150
095900 WOOD FLOORING				
Wood floor - infill:				
Function rm	76	SF	20.00	1,520
Wood Floor - Patch & Refinish:				
Function rm	1,800	SF	4.00	7,200
1st E. lobby	437	SF	4.00	1,748
1st Hall	934	SF	4.00	3,736
Library	625	SF	4.00	2,500
				16,704
096800 CARPETING				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Carpet Tile (VCT Remains):				
Corridor	1,234	SF	5.00	6,170
Office	4,734	SF	5.00	23,670
Activity rm	1,510	SF	5.00	7,550
Living rm	331	SF	5.00	1,655
Misc. floor prep	1	LS	2,500.00	2,500
				41,545
098433 ACOUSTICAL WALL PANELS				
Fabric wrapped wall panel - allow				
Main lobby	200	SF	36.00	7,200
West lobby	200	SF	36.00	7,200
East lobby	200	SF	36.00	7,200
Function rm	600	SF	36.00	21,600
				43,200
DIVISION 10 - SPECIALTIES				
101000 OPERABLE PARTITION				
28' x 10' Operable partition (1 loc)	280	SF	115.00	32,200
				32,200
101400 SIGNAGE				
Interior Signage	16,574	GSF	0.20	3,315
Exterior Signage	1	LS	7,500.00	7,500
				10,815
102113 TOILET COMPARTMENTS				
Floor/Wall Mtd. Solid Plastic Toilet Partition - Allow:				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Standard	5	EA	1,200.00	6,000
Barrier free	4	EA	1,500.00	6,000
Urinal screen	2	EA	325.00	650
				12,650

102800 TOILET ACCESSORIES

Paper towel dispenser / disposal	7	EA	225.00	1,575
Electric hand dryer		NIC		
Mirrors - framed	16	EA	350.00	5,600
Soap dispenser	16	EA	40.00	640
Sanitary prod disposal	6	EA	60.00	360
Grab bars toilet	14	EA	85.00	1,190
Coat hook	12	EA	18.00	216
Toilet tissue dispenser	12	EA	42.00	504
Diaper deck	2	EA	500.00	1,000
				11,085

109000 MISCELLANEOUS SPECIALTIES

Lobby tack board	3	EA	750.00	2,250
Elec fireplace	1	EA	2,000.00	2,000
Fire extinguisher & cab	6	EA	475.00	2,850
Corner Guards	1	LS	1,500.00	1,500
Janitor shelf w/mop holder	1	EA	150.00	150
Misc. special ties	1	LS	500.00	500
				9,250

DIVISION 11 - EQUIPMENT

119000 EQUIPMENT

Exercise equipment		NIC		
AV equipment		NIC		
Kitchen equipment	1	LS	100,000.00	100,000

Residential Appliances:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Health office	1	LS	1,200.00	1,200
GF kitchenette	2	EA	2,500.00	5,000
				106,200

DIVISION 12 - FURNISHINGS

129000 FURNISHINGS

Surface Entry mat	4	EA	1,500.00	6,000
GF Window shades	31	EA	125.00	3,875
1st flr Window shades	41	EA	125.00	5,125
Function rm motor op black out shade	7	EA	750.00	5,250
				20,250

DIVISION 14 - CONVEYING EQUIPMENT

142400 ELEVATORS & LIFTS*		REMAINS		
				0

DIVISION 21 - FIRE SUPPRESSION

210000 FIRE SUPPRESSION*				
Rework exist sys	15,624	GSF	3.50	54,684
New System @:				
GF South Entry Addition	190	GSF	9.00	1,710
Kitchen Addition	490	GSF	9.00	4,410
Kitchen Renovation	270	GSF	9.00	2,430
				63,234

DIVISION 22 - PLUMBING

220000 PLUMBING*				
Demolition & disconnects	1	LS	2,500.00	2,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
New Fixtures -allow:				
Water closet	16	EA	1,800.00	28,800
Urinal	2	EA	1,500.00	3,000
Wall hung lavatory	8	EA	1,250.00	10,000
Ctr lavatory	8	EA	1,050.00	8,400
Water cooler	2	EA	3,200.00	6,400
Kitchenette/program sink	4	EA	1,300.00	5,200
MOP sink	2	EA	1,300.00	2,600
Fixture rough in	42	EA	3,800.00	159,600
Kitchen rough in	1	LS	10,000.00	10,000
Drainage -allow:				
Toilet RM Floor drain		NIC		
Kitchen Floor drain	2	EA	1,200.00	2,400
Vestibule & canopy roof drainage	2	EA	1,200.00	2,400
Equipment:				
Sewage ejector		NIC		
Gas piping	1	LS	2,500.00	2,500
Gas water heater	1	LS	7,500.00	7,500
Water heater valve and trim	1	LS	2,500.00	2,500
Underground Water Service:		EXISTING		
Misc. Plumbing	1	LS	5,000.00	5,000
As built, permit and test	1	LS	3,000.00	3,000
				261,800

DIVISION 23 - HVAC

230000 HVAC*

HVAC -reno	15,624	GSF	40.00	624,960
HVAC:				
GF South Entry Addition	190	GSF	40.00	7,600
Kitchen Addition	490	GSF	40.00	19,600
Kitchen Renovation	270	GSF	40.00	10,800
Relocate chiller to kitchen roof	1	LS	7,500.00	7,500
Elev shaft Ventilation		Existing		
				670,460

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DIVISION 26 - ELECTRICAL				
260000 ELECTRICAL*				
Electrical - reno	15,624	GSF	30.00	468,720
Electrical:				
GF South Entry Addition	190	GSF	30.00	5,700
GF South Entry Canopy	100	GSF	30.00	3,000
GF North Entry Ramp	1	LS	2,500.00	2,500
Kitchen Addition	490	GSF	30.00	14,700
Kitchen Renovation	270	GSF	30.00	8,100
1st Floor Deck	1	LS	2,500.00	2,500
Ground Floor Patio	1	LS	2,500.00	2,500
				507,720
DIVISION 31 - EARTHWORK				
310000 EARTHWORK				
Earthwork @:				
GF South Entry Addition	1	LS	3,000.00	3,000
GF South Entry Canopy	1	LS	1,500.00	1,500
GF North Entry Ramp	1	LS	3,000.00	3,000
Kitchen Addition	1	LS	5,000.00	5,000
1st Floor Deck	1	LS	2,500.00	2,500
Ground Floor Patio	1	LS	2,500.00	2,500
Ground slab @ new plumbing	1	LS	2,500.00	2,500
				20,000
311000 SITE PREPARATION & CLEARING				
Misc. Site Preparation @:				
GF South Entry Addition & Canopy	1	LS	2,000.00	2,000
GF North Entry Ramp	1	LS	2,000.00	2,000
Kitchen Addition	1	LS	2,000.00	2,000
1st Floor Deck	1	LS	2,000.00	2,000
Ground Floor Patio	1	LS	2,000.00	2,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Phasing/occupancy/logistics	1	LS	2,500.00	2,500
				12,500

DIVISION 32 - EXTERIOR IMPROVEMENTS

323100 SITE IMPROVEMENTS

Pavement patch @ utilities		NIC		
GF South Entry Addition:				
Pavers to match	200	SF	20.00	4,000
8" Gravel base	5	CY	28.00	140
*Assumes entry drop off drive to remain				
GF North Entry Ramp:				
Conc ramp wall (NIC masonry veneer)	72	LF	125.00	9,000
Guardrail	72	LF	275.00	19,800
Wall rail	40	LF	115.00	4,600
Approach - 4" Concrete walk	200	SF	8.00	1,600
Ramp slab	305	SF	8.00	2,440
8" Gravel base	13	CY	35.00	438
Ground Floor Patio:				
Conc retaining wall	9	LF	300.00	2,700
Pavers	344	SF	30.00	10,320
8" Gravel base	8.5	CY	35.00	298
Replace Bit foundation dampproofing	1	LS	1,000.00	1,000
Kitchen Addition:				
Approach - 4" Concrete walk	100	SF	8.00	800
8" Gravel base	3	CY	45.00	135
1st Floor Deck:				
Found wall	32	LF	115.00	3,680
Crawl space gravel	258	SF	2.00	516
PT deck framing	258	SF	15.00	3,870
Trex decking	258	SF	8.00	2,064
Guard rail	32	LF	250.00	8,000
Misc trim & finishing	1	LS	1,500.00	1,500
Misc Site improvements -allowance		NIC		
				76,900

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
328000 IRRIGATION				
Irrigation system		NIC		
				0
329000 LANDSCAPING				
Restore disturbed areas	1	LS	2,000.00	2,000
Planting -allowance		NIC		
				2,000
DIVISION 33 - UTILITIES				
330000 UTILITIES				
Water Supply:				
Fire Service		Remains		
Domestic Service		Remains		
Sanitary:				
Sanitary service		Remains		
Kitchen grease trap		NIC		
Site Drainage :				
GF South Entry Addition		NIC		
GF North Entry Ramp		NIC		
Ground Floor Patio		NIC		
Fuel Distribution:		Remains		
Electrical:				
Transformer pad		Remains		
Generator pad		NIC		
				0

PROJECT: Arlington Central School Senior Center
LOCATION: Arlington, MA
CLIENT: Sterling Associates, Inc
DATE: 11-Apr-16

ALTERNATES

OPTION NO. 1 - REVISED KITCHEN LAYOUT ($140,439)

Arlington Central School Senior Center - Alternates 4/11/2016

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
OPTION NO. 1 - REVISED KITCHEN LAYOUT				
Delete:				
Kitchen Addition	-189	GSF	100.00	-18,900
Dunnage & spring isol @ relocated RTU	-1	LS	10,000.00	-10,000
Relocate chiller to kitchen roof	-11	LS	7,500.00	-82,500
Ground Floor Patio	-1	LS	8,365.00	-8,365
Add:				
1st Floor Deck	82	GSF	75.00	6,150
SUBTOTAL				-113,615
GENERAL CONDITIONS		0 %		0
SUBTOTAL				-113,615
GENERAL REQUIREMENTS		2.5 %		-2,840
SUBTOTAL				-116,455
P&P BOND AND INSURANCE		1.85 %		-2,154
SUBTOTAL				-118,610
PERMIT		0 %		0
SUBTOTAL				-118,610
FEE		4 %		-4,744
SUBTOTAL				-123,354

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DESIGN CONTINGENCY		10 %		-12,335
SUBTOTAL				-135,690
ESCALATION		3.5 %		-4,749
TOTAL ALTERNATE NO. 1				-140,439