COMPREHENSIVE BUILDING/PROGRAM AUDIT
for
THE TOWN OF WAYLAND
MASSACHUSETTS

May 10, 2013



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BUILDING USE AUDIT
Town of Wayland, Massachusetts

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Introduction

Buildings included in this audit are as follows:

Town Hall
Fire
Library

In 2013 DRA Architects with its team of engineers performed visits to each of the buildings and evaluated to determine the types of improvements that will be necessary for these buildings. Conversations were held with department heads and those in charge of maintenance. These improvements included such topics as:

Life Safety
Health
American's with Disabilities Compliance
Site Issues
Exterior Envelop Issues
Building Interiors
Energy and Water Conservation
Hazardous Materials
New Construction

With any renovation project it is necessary that Chapter 34 Existing Structures of the IBC be reviewed in light of the items of renovation work that are selected. In doing so it may be determined that other items of work will be necessary to achieve compliance.

Each of the improvements was then prioritized into the following categories:

Current Critical
Potentially Critical
Necessary – Not yet Critical
Recommended

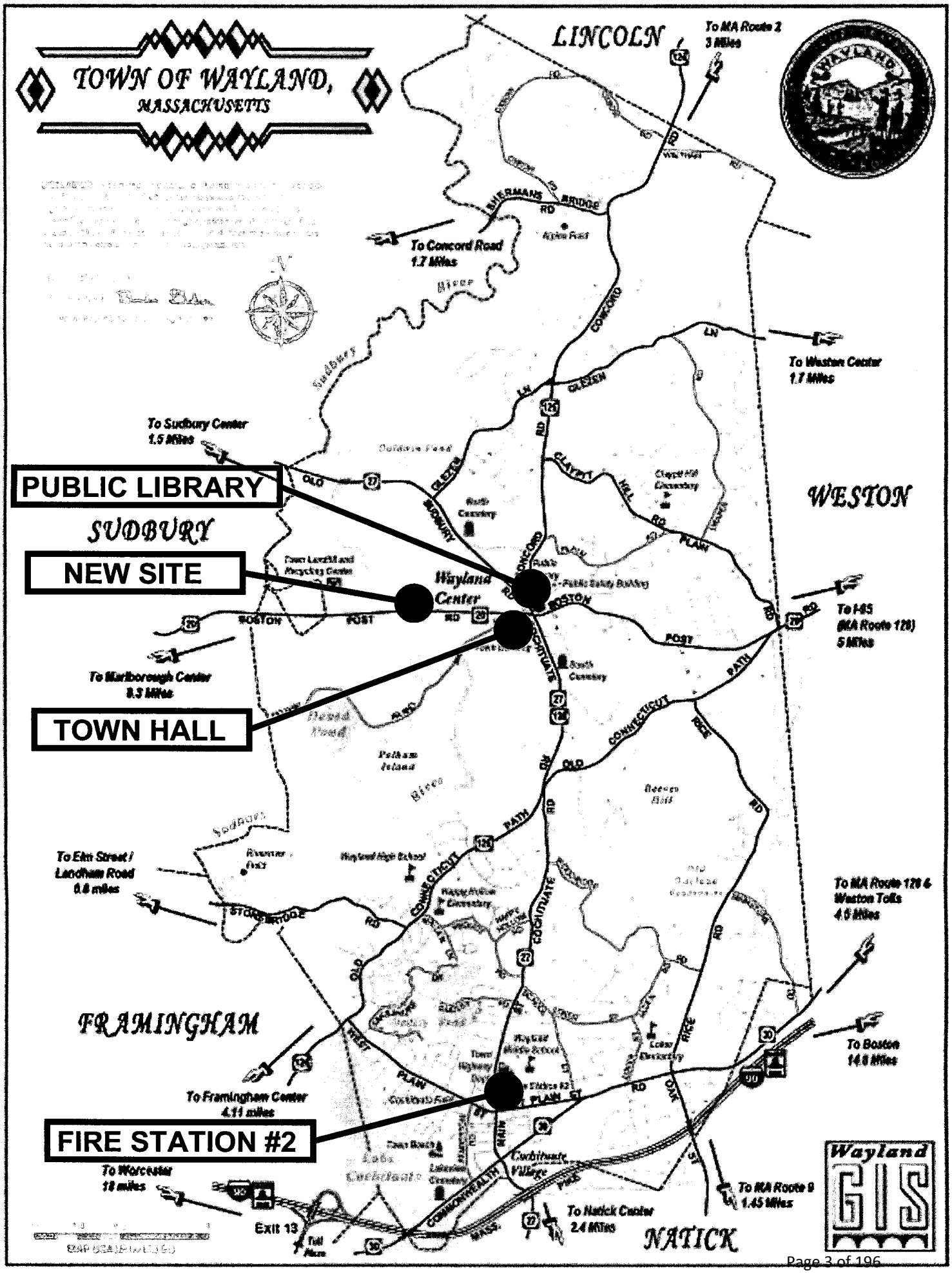
A detailed description of criteria used for each of the categories is included in the report.

For each of the improvements an independent cost estimate was obtained. The estimates are a projection of the costs and include soft costs associated with each item. (Soft costs are the miscellaneous costs associated with professional fees, contingency, bonding costs, bidding expense, testing etc.). The estimator does not have the advantage of detailed drawings for each of the items so the intent is to provide an order of magnitude that, should the improvement move ahead, will be refined up to the bid date. For many of the like items it will be possible to group them together and

save on the soft costs. Similarly, there may be items that can be bid without professional drawings and specifications and, again, the soft costs can be reduced.
The cost should be used as an overall budget for each item.

This report is organized with the recommendations presented first followed by the reports for each of the buildings from the various engineers and then the cost estimate for the work.

* * *


TOWN OF WAYLAND,
MASSACHUSETTS
LINCOLN
To MA Route 2
3 Miles
To Concord Road
1.7 Miles
To Weston Center
1.7 Miles
To Sudbury Center
1.5 Miles
PUBLIC LIBRARY
SUDBURY
NEW SITE
Wayland Center
WESTON
To I-95
(MA Route 128)
5 Miles
To Marlborough Center
8.3 Miles
TOWN HALL
To Elm Street /
Landham Road
0.8 miles
To MA Route 128 &
Weston Tolls
4.5 Miles
FRAMINGHAM
To Framingham Center
4.11 miles
To Boston
14.8 Miles
FIRE STATION #2
To Worcester
18 miles
Exit 13
To Natick Center
2.4 Miles
To MA Route 9
1.45 Miles
NATICK
Wayland GIS

BUILDING USE AUDIT
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Priority Rating System

Priorities are listed to the left of each item:

Priority 1 – Current Critical: Conditions in this category require immediate action to:

- Correct a cited safety hazard
- Stop accelerated deterioration
- Return a facility to operation

Priority 2 – Potentially Critical: Conditions in this category if not corrected soon may result in:

- Intermittent Operations
- Rapid Deterioration
- Potential Safety Hazards

Priority 3 – Necessary, not yet critical.
Conditions in this category require appropriate attention to preclude a predictable deterioration or potential downtime and possible damage and higher costs.

Priority 4 – Recommended.
Conditions in this category include items that represent a sensible improvement to existing conditions. They are not required for the most basic function of the facility, but will improve overall usability and/or reduce long-term maintenance costs.

– Comment only.

BUILDING USE AUDIT
Town of Wayland, Massachusetts

OPTION DESCRIPTIONS

Option #1*

The main driving force of this option is the construction of a new building on the Town Center site that will accommodate both the Library and Council on Aging functions. These two uses are able to share a number of functions, but more importantly the Library is an excellent adjunct for the senior citizens.

Moving the Council on Aging from Town Hall will provide the much need expansion space for Town Departments but would not permit an expansion of the School Department.

The option allows for the relocation of the School Department to the library building. This will provide an expansion of the School Department but would leave a large are of Town Hall vacant. A portion of this space could be used for an IT expansion and the Arts Center without reducing meeting room space.

The Arts Center would be relocated from Fire House #2 to the meeting room area of Town Hall resulting in a reduction of meeting space.

The Fire House could then accommodate an internal expansion to resolve its space needs. Removal of the storage are at the rear of the building will allow for full use of the equipment bays.

Option 1B requires moving the library out of the current library building but without a proposed future use. The option therefore calls for either mothballing or for the sale of the current building. The School Department would remain at Town Hall but as such would not provide expansion space for the department and would also restrict an expansion of the IT department.

Option #2

This option is similar to option #1 with the exception that a new building just for the Council on Aging would be constructed on the Town Center Site.

Moving the Council on Aging from Town Hall will provide the much need expansion space for Town Departments but would not permit an expansion of the School Department.

The Arts Center would be relocated from Fire House #2 to the meeting room area of Town Hall resulting in a reduction of meeting space. (OPTION 2B): Alternatively an addition could be added to the new COA building for the Arts Center to allow for the meeting space to be unchanged.

The Fire House could then accommodate an internal expansion to resolve its space needs. Removal of the storage are at the rear of the building will allow for full use of the equipment bays.

The library would need to remain in its current building. With the proximity of wetlands, history of basement flooding (town has equipment to reduce the impact of a flood) and the lack of parking we do not believe this to be a viable option.

OPTION #3*

This option is driven by the Library moving to a new building on the Town Center Site. The new location is highly visible and would therefore would be an enhancement for the building.

If the School Department is relocated to the current Library building an expansion of the Council on Aging would be possible with a single story addition and by using the space vacated by the School Department.

The School Department is undersized for the Library building, however, this will allow for the majority of spaces to be accommodated on the main level reducing the potential loss of files etc., should a basement flood occur again. Parking requirements will be less than the library and should be satisfied by the current parking spaces. The office spaces mostly fit under the mezzanine level and low ceiling areas, leaving the higher spaces for open plan administrative spaces. The one challenge will be to enclose the high oval space in the historic portion of the building to create conference space. This would need to be accomplished with high glass walls constructed outside the large cornice that runs outside the space.

Town Department expansion would occur in the area of the current COA.

The Arts Center would be relocated from Fire House #2 to the meeting room area of Town Hall resulting in a reduction of meeting space. (OPTION 3B): Alternatively the Library building could be constructed slightly larger to include an Arts Center.

The Fire House could then accommodate an internal expansion to resolve its space needs. Removal of the storage are at the rear of the building will allow for full use of the equipment bays.

OPTION #4

In this option the Town Hall Departments would be relocated to a new building at Town Center.

Recreation and the Pre-School would remain at the current Town Hall. COA would have sufficient space in the current building for a full expansion in addition to accommodating the Arts Center in the remaining space.
The Fire House could then accommodate an internal expansion to resolve its space needs. Removal of the storage are at the rear of the building will allow for full use of the equipment bays.

The Option requires that the Library be relocated to the Town Hall site. Due to the limitations of floor loading the library would be accommodated with a two story addition. The large meeting space for the COA and Library would also need to be accommodated in the addition. However, we believe the addition would be too large for the current site.

The School Department would be relocated to the library.

OPTION #5

The new site at Town Center includes a wood framed building that was constructed in the flood plain. This option would include the use of that building for the School Department and Arts Center.

The space requirements at Town Hall exceed even those of Option #4 and is therefore not a viable option.

* Most viable options.

BUILDING	DEPARTMENTS: Town Offices	School Committee	Pre-School	Recreation Department	Arts Center	Council On Aging	Library	Fire House	Sell or Mothball	BUDGET
OPTION ONE										ONE
Town Hall	■		■	■	■					$ 2,534,158.00
New Site						■	■			$ 23,534,712.00
Library		■								$ 1,060,301.00
Firehouse								■		$ 1,038,042.00
TOTALS										**$ 28,167,213.00**
OPTION ONE "B"										ONE "B"
Town Hall	■	■	■	■	■					$ 2,534,158.00
New Site						■	■			$ 23,534,712.00
Library									■	$ 105,424.00
Firehouse								■		$ 1,038,042.00
TOTALS										**$ 27,212,336.00**
OPTION TWO										TWO
Town Hall	■	■	■	■	■					$ 2,557,787.00
New Site						■				$ 10,248,603.00
Library							■			$ -
Firehouse								■		$ 1,047,721.00
TOTALS										**$ 13,854,111.00**
OPTION TWO "B"										TWO "B"
Town Hall	■	■	■	■	■					$ 2,557,787.00
New Site					■	■				$ 11,138,879.00
Library							■			$ -
Firehouse								■		$ 1,047,721.00
TOTALS										**$ 14,744,387.00**

	DEPARTMENTS									BUDGET
BUILDING	Town Offices	School Committee	Pre-School	Recreation Department	Arts Center	Council On Aging	Library	Fire House	Sell or Mothball	
OPTION THREE										THREE "B"
Town Hall										$ 11,531,450.00
Library										$ 1,060,301.00
New Site										$ 14,810,753.00
Firehouse										$ 1,038,041.00
TOTALS										**$ 28,440,545.00**
OPTION FOUR										
Town Hall										
Library										
New Site										
Firehouse										
OPTION FOUR "B"										
Town Hall										
Library										
New Site										
Firehouse										
OPTION FIVE										
Town Hall										
Library										
New Site										
Firehouse										

CONDITION ASSESSMENT, WAYLAND, MA. May 2013

PRIORITIES & KEY		
1		Current Critical
2		Potentially Critical
3		Necessary-Not yet Critical
4		Recommended
		Comment
Grouping: Items that can be bid as a package.		
Cost: Cost of the work		

			TOWN HALL				FIRE STATION #2				LIBRARY				TOTALS:		
	#		Cost	Proposed Year of Work			Cost	Proposed Year of Work			Cost	Proposed Year of Work					
LIFE SAFETY	1	Extend Corridor for Egress	$ 10,583.00								$ 21,563.00				$ 32,146.00	Extend Corridor for Egress	LIFE SAFETY
	2	Add Fire Rated Enclosure at Stairs									$ 6,698.00				$ 6,698.00	Add Fire Rated Enclosure at Stairs	
	3	Add Exit Signs									$ 3,493.00				$ 3,493.00	Add Exit Signs	
	4	Add Emergency Lighting									$ 22,491.00				$ 22,491.00	Add Emergency Lighting	
	5	Upgrade Fire Alarm System	$ 241,882.00								$ 106,926.00				$ 348,808.00	Upgrade Fire Alarm System	
	6	Add Fire Rated Partition	$ 2,557.00												$ 2,557.00	Add Fire Rated Partition	
	7	Upgrade Electrical Service Equipment	$ 601,119.00												$ 601,119.00	Upgrade Electrical Service Equipment	
	8	Upgrade Standby Generator	$ 119,582.00												$ 119,582.00	Upgrade Standby Generator	
	9	Provide Proper Support of Backflow Preventer	$ 1,318.00												$ 1,318.00	Provide Proper Support of Backflow Preventer	
	10	Add Platform & Ramp at Door									$ 89,951.00				$ 89,951.00	Add Platform & Ramp at Door	
	11	Patch Concrete Step Nosings	$ 7,986.00												$ 7,986.00	Patch Concrete Step Nosings	
	12	Provide Safer Access to AHU in Attic									$ 5,443.00				$ 5,443.00	Provide Safer Access to AHU in Attic	
HEALTH	13	Add Moisture Barrier/Slab in Crawl Space	$ 402,204.00												$ 402,204.00	Add Moisture Barrier/Slab in Crawl Space	HEALTH
	14	Additional Kiln Hood if required					$ 5,265.00								$ 5,265.00	Additional Kiln Hood if required	
	15	Replace Ventilation System					$ 10,743.00								$ 10,743.00	Replace Ventilation System	
	16	Replace Septic System													$ -	Replace Septic System	
ADA	17	Add Push Button Door Operator	$ 38,299.00								$ 11,509.00				$ 49,808.00	Add Push Button Door Operator	ADA
	18	Correct Stair Nosings Interior	$ 6,000.00												$ 6,000.00	Correct Stair Nosings Interior	
	19	Replace/Add Hand/Guardrails on Stairs	$ 40,218.00												$ 40,218.00	Replace/Add Hand/Guardrails on Stairs	
	20	Add Guard around Low Ceiling Areas	$ 5,389.00												$ 5,389.00	Add Guard around Low Ceiling Areas	
	21														$ -	0	
	22	Replace Sinks & Modify Counters	$ 21,939.00				$ 6,217.00								$ 28,156.00	Replace Sinks & Modify Counters	
	23	Correct Door Hardware	$ 31,467.00				$ 61,814.00								$ 93,281.00	Correct Door Hardware	
	24	Correct Door Size(s)	$ 12,344.00												$ 12,344.00	Correct Door Size(s)	
	25														$ -		
	26	New/Modified Toilet Room(s)					$ 36,875.00								$ 36,875.00	New/Modified Toilet Room(s)	
	27	Modify Vestibule					$ 456.00								$ 456.00	Modify Vestibule	
	28	Add Lift to Stage	$ 45,156.00												$ 45,156.00	Add Lift to Stage	
	29	Ramp Modifications	$ 7,051.00												$ 7,051.00	Ramp Modifications	
	30	Add Low Sections to Service Counters	$ 6,217.00												$ 6,217.00	Add Low Sections to Service Counters	
	31	Modify Service Counters	$ 6,421.00								$ 6,217.00				$ 12,638.00	Modify Service Counters	
	32	Modify/Rearrange Furnishings	$ 5,239.00								$ 2,098.00				$ 7,337.00	Modify/Rearrange Furnishings	
	33	Replace stair railings	$ 9,290.00								$ 28,882.00				$ 38,172.00	Replace stair railings	
	34	Replace Room Signage	$ 36,773.00								$ 10,260.00				$ 47,033.00	Replace Room Signage	
	35	Modify Items Projecting from Walls	$ 1,943.00												$ 1,943.00	Modify Items Projecting from Walls	
	36	Replace Lavatory Basin & Faucets	$ 3,951.00												$ 3,951.00	Replace Lavatory Basin & Faucets	
	37	Construct New Restroom	$ 155,792.00				$ 343,795.00								$ 499,587.00	Construct New Restroom	
	38	Replace Threshold	$ 1,300.00												$ 1,300.00	Replace Threshold	
	39	Add Extensions to Stair Handrails	$ 2,518.00								$ 2,518.00				$ 5,036.00	Add Extensions to Stair Handrails	
	40	Replace Drinking Fountain & Patch Wall	$ 6,544.00												$ 6,544.00	Replace Drinking Fountain & Patch Wall	
	41	Add Floor Designations to Elevator									$ 876.00				$ 876.00	Add Floor Designations to Elevator	
	42	Add Grab Bar in Toilet									$ 1,873.00				$ 1,873.00	Add Grab Bar in Toilet	
	43	Re-Position Stacks									$ 10,483.00				$ 10,483.00	Re-Position Stacks	
SITE	44														$ -		SITE
	45	Inspect Septic System					$ 5,876.00								$ 5,876.00	Inspect Septic System	
	46	Replace Sidewalk & Modify Steps									$ 238,107.00				$ 238,107.00	Replace Sidewalk & Modify Steps	
EXTERIOR	47	Replace Damaged Siding	$ 8,169.00												$ 8,169.00	Replace Damaged Siding	EXTERIOR
	48	Repair/Paint Wood Sills	$ 30,236.00								$ 12,329.00				$ 42,565.00	Repair/Paint Wood Sills	
	49	Restore Pilaster Bases	$ 4,230.00												$ 4,230.00	Restore Pilaster Bases	
	50	Restore Cornice trim	$ 25,046.00												$ 25,046.00	Restore Cornice trim	
	51	Re-pointing and Masonry Repairs	$ 14,490.00				$ 3,974.00								$ 18,464.00	Re-pointing and Masonry Repairs	
	52	Repoint Cornice	$ 24,241.00												$ 24,241.00	Repoint Cornice	
	53	Clean and/or Paint Wood Trim	$ 14,666.00												$ 14,666.00	Clean and/or Paint Wood Trim	
	54	Replace Aprons at Overhead Doors					$ 35,376.00								$ 35,376.00	Replace Aprons at Overhead Doors	
	55	Misc. Window Repairs/Painting	$ 2,531.00												$ 2,531.00	Misc. Window Repairs/Painting	
	56	Paint Cupola and Wood Trim					$ 4,917.00								$ 4,917.00	Paint Cupola and Wood Trim	
	57	Repair Rain-Leader	$ 937.00								$ 7,193.00				$ 8,130.00	Repair Rain-Leader	
	58	Repaint Doors/Louvers	$ 1,191.00												$ 1,191.00	Repaint Doors/Louvers	
	59	Repaint Soffit Panels	$ 8,076.00												$ 8,076.00	Repaint Soffit Panels	
	60	Remove Ivy									$ 9,486.00				$ 9,486.00	Remove Ivy	
	61	Re-Paint Railings									$ 3,354.00				$ 3,354.00	Re-Paint Railings	
	62	Patch Concrete at Pilaster	$ 1,398.00												$ 1,398.00	Patch Concrete at Pilaster	
	63	Re-Paint Wood Trim	$ 2,113.00												$ 2,113.00	Re-Paint Wood Trim	
	64	Clean Granite									$ 52,666.00				$ 52,666.00	Clean Granite	
	65	Repair Pilasters	$ 8,329.00												$ 8,329.00	Repair Pilasters	
INTERIORS	66	Repair Chimney Crack													$ -	Repair Chimney Crack	INTERIORS
	67	Replace Ceiling Areas	$ 4,840.00												$ 4,840.00	Replace Ceiling Areas	
	68	Patch Tiled Walls in Restrooms	$ 7,251.00												$ 7,251.00	Patch Tiled Walls in Restrooms	
	69	Paint Door & Frame	$ 3,116.00												$ 3,116.00	Paint Door & Frame	
	70	Add New Rubber Treads & Risers to Stair	$ 3,445.00												$ 3,445.00	Add New Rubber Treads & Risers to Stair	
	71	Replace Vinyl Floor Tile	$ 86,678.00												$ 86,678.00	Replace Vinyl Floor Tile	
	72	Re-Finish Stage & Steps	$ 36,240.00												$ 36,240.00	Re-Finish Stage & Steps	
	73	Add Drainage Pan at Cupola	$ 2,613.00												$ 2,613.00	Add Drainage Pan at Cupola	
	74	Provide Dedicated IT Room with Cooling					$ 27,213.00								$ 27,213.00	Provide Dedicated IT Room with Cooling	
	75	Replace Light Fixture Lenses									$ 7,488.00				$ 7,488.00	Replace Light Fixture Lenses	
ENERGY & WATER CONSERVATION	76	Replace Temperature Control System*	$ 541,346.00								$ 161,611.00				$ 702,957.00	Replace Temperature Control System*	ENERGY & WATER CONSERVATION
	77	Replace Unit Ventilators	$ 77,145.00												$ 77,145.00	Replace Unit Ventilators	
	78	Replace pumps with VFD Units	$ 60,368.00												$ 60,368.00	Replace pumps with VFD Units	
	79	Add Primary/Secondary Pumping	$ 58,677.00								$ 52,657.00				$ 111,334.00	Add Primary/Secondary Pumping	
	80	Upgrade Interior Lighting	$ 1,820,855.00				$ 81,479.00								$ 1,902,334.00	Upgrade Interior Lighting	
	81	Upgrade Exterior Lighting	$ 32,598.00				$ 15,570.00				$ 7,449.00				$ 55,617.00	Upgrade Exterior Lighting	
	82	Replace Plumbing Fixtures with Low Flow	$ 65,939.00				$ 196,759.00								$ 262,698.00	Replace Plumbing Fixtures with Low Flow	
	83	Replace Urinals with Low Flow	$ 30,424.00												$ 30,424.00	Replace Urinals with Low Flow	
	84	Add insulation at wall penetration	$ 50.00												$ 50.00	Add insulation at wall penetration	
	85	Replace Damaged Glass	$ 642.00												$ 642.00	Replace Damaged Glass	
	86	Replace Thermostats					$ 2,633.00								$ 2,633.00	Replace Thermostats	
	87	Upgrade Boiler to Gas					$ 40,741.00								$ 40,741.00	Upgrade Boiler to Gas	
	88	Add Air Conditioning					$ 367,704.00								$ 367,704.00	Add Air Conditioning	
	89	Upgrade Lighting Controls	$ 63,643.00				$ 97,244.00				$ 17,757.00				$ 178,644.00	Upgrade Lighting Controls	
	90	Replace Mechanical Equipment									$ 830,844.00				$ 830,844.00	Replace Mechanical Equipment	
	91	Provide Separate A/C Controls to Meeting Rm									$ 17,137.00				$ 17,137.00	Provide Separate A/C Controls to Meeting Rm	
HAZARDOUS	92	Remove & Replace VAT	$ 6,972.00												$ 6,972.00	Remove & Replace VAT	HAZARDOUS
	93	Replace Pipe Fittings													$ -	Replace Pipe Fittings	
	94	Repair Crack in Chimney					$ 975.00								$ 975.00	Repair Crack in Chimney	
																0	
		TOTALS PER BUILDING	$ 4,879,577.00				$ 1,345,626.00				$ 1,749,359.00				$ 7,974,562.00	TOTALS PER BUILDING	

* Alternate Approaches:

Replace/reconfigure Temp Control Zones	$ 226,377.00
Convert 3 AHU's to dedicated outside air systems	$ 5,069,804.00

BUILDING USE AUDIT
Town of Wayland

				YEAR				
ROW#	BUILDING: TOWN HALL	COST	PRIORITIES	2014	2015	2016	2017	2018
11	Patch Concrete Step Nosings	$ 7,986.00	1	$ 7,986.00				
92	Remove & Replace VAT	$ 6,972.00	2	$ 6,972.00				
5	Upgrade Fire Alarm System	$ 241,882.00	3	$ 241,882.00				
9	Provide Proper Support of Backflow Preventer	$ 1,318.00	4	$ 1,318.00				
1	Extend Corridor for Egress	$ 10,583.00	5	$ 10,583.00				
6	Add Fire Rated Partition	$ 2,557.00	6	$ 2,557.00				
19	Replace/Add Hand/Guardrails on Stairs	$ 40,218.00	7	$ 40,218.00				
48	Repair/Paint Wood Sills	$ 30,236.00	8		$ 30,236.00			
49	Restore Pilaster Bases	$ 4,230.00	9		$ 4,230.00			
50	Restore Cornice trim	$ 25,046.00	10		$ 25,046.00			
65	Repair Pilasters	$ 8,329.00	11		$ 8,329.00			
85	Replace Damaged Glass	$ 642.00	12		$ 642.00			
55	Misc. Window Repairs/Painting	$ 2,531.00	13		$ 2,531.00			
52	Repoint Cornice	$ 24,241.00	14		$ 24,241.00			
51	Re-pointing and Masonry Repairs	$ 14,490.00	15		$ 14,490.00			
24	Correct Door Size(s)	$ 12,344.00	16		$ 12,344.00			
13	Add Moisture Barrier/Slab in Crawl Space	$ 402,204.00	17					
84	Add insulation at wall penetration	$ 50.00	1	$ 50.00				
73	Add Drainage Pan at Cupola	$ 2,613.00	2	$ 2,613.00				
58	Repaint Doors/Louvers	$ 1,191.00	3	$ 1,191.00				
53	Clean and/or Paint Wood Trim	$ 14,666.00	4	$ 14,666.00				
62	Patch Concrete at Pilaster	$ 1,398.00	5	$ 1,398.00				
67	Replace Ceiling Areas	$ 4,840.00	6		$ 4,840.00			
70	Add New Rubber Treads & Risers to Stair	$ 3,445.00	7		$ 3,445.00			
72	Re-Finish Stage & Steps	$ 36,240.00	8		$ 36,240.00			
20	Add Guard around Low Ceiling Areas	$ 5,389.00	9		$ 5,389.00			
18	Correct Stair Nosings Interior	$ 6,000.00	10		$ 6,000.00			
29	Ramp Modifications	$ 7,051.00	11		$ 7,051.00			
30	Add Low Sections to Service Counters	$ 6,217.00	12		$ 6,217.00			
31	Modify Service Counters	$ 6,421.00	13		$ 6,421.00			
33	Replace stair railings	$ 9,290.00	14		$ 9,290.00			
35	Modify Items Projecting from Walls	$ 1,943.00	15		$ 1,943.00			
38	Replace Threshold	$ 1,300.00	16		$ 1,300.00			
39	Add Extensions to Stair Handrails	$ 2,518.00	17		$ 2,518.00			
32	Modify/Rearrange Furnishings	$ 5,239.00	18		$ 5,239.00			
22	Replace Sinks & Modify Counters	$ 21,939.00	19		$ 21,939.00			
17	Add Push Button Door Operator	$ 38,299.00	20			$ 186,943.00		
23	Correct Door Hardware	$ 31,467.00	21			$ 31,467.00		
36	Replace Lavatory Basin & Faucets	$ 3,951.00	22			$ 3,951.00		
40	Replace Drinking Fountain & Patch Wall	$ 6,544.00	23			$ 6,544.00		
47	Replace Damaged Siding	$ 8,169.00	24			$ 8,169.00		
34	Replace Room Signage	$ 36,773.00	25			$ 36,773.00		
28	Add Lift to Stage	$ 45,156.00	26				$ 45,156.00	
68	Patch Tiled Walls in Restrooms	$ 7,251.00	27				$ 7,251.00	
37	Construct New Restroom	$ 155,792.00	28					
59	Repaint Soffit Panels	$ 8,076.00	1	$ 8,076.00				
63	Re-Paint Wood Trim	$ 2,113.00	2	$ 2,113.00				
69	Paint Door & Frame	$ 3,116.00	3	$ 3,116.00				
77	Replace Unit Ventilators	$ 77,145.00	4		$ 77,145.00			
78	Replace pumps with VFD Units	$ 60,368.00	5			$ 60,368.00		
79	Add Primary/Secondary Pumping	$ 58,677.00	6				$ 58,677.00	
81	Upgrade Exterior Lighting	$ 32,598.00	7				$ 32,598.00	
8	Upgrade Standby Generator	$ 119,582.00	8				$ 119,582.00	
76	Replace Temperature Control System*	$ 541,346.00	9					$ 541,346.00
7	Upgrade Electrical Service Equipment	$ 601,119.00	10					
83	Replace Urinals with Low Flow	$ 30,424.00	11					
82	Replace Plumbing Fixtures with Low Flow	$ 65,939.00	12					
71	Replace Vinyl Floor Tile	$ 86,678.00	13				$ 86,678.00	
80	Upgrade Interior Lighting	$ 1,820,855.00	14					
	TOTAL PER ANNUM			$ 344,739.00	$ 317,066.00	$ 334,215.00	$ 349,942.00	$ 541,346.00
	CUMULATIVE TOTALS				$ 661,805.00	$ 996,020.00	$ 1,345,962.00	$ 1,887,308.00

BUILDING USE AUDIT
Town of Wayland

				YEAR				
ROW#	BUILDING:FIRE STATION #2	COST	PRIORITIES	2014	2015	2016	2017	2018
94	Repair Crack in Chimney	$ 975.00	1	$ 975.00				
14	Additional Kiln Hood if required	$ 5,265.00	2					
15	Replace Ventilation System	$ 10,743.00	1	$ 10,743.00				
86	Replace Thermostats	$ 2,633.00	2		$ 2,633.00			
23	Correct Door Hardware	$ 61,814.00	3		$ 61,814.00			
22	Replace Sinks & Modify Counters	$ 6,217.00	4					
27	Modify Vestibule	$ 456.00	5		$ 456.00			
56	Paint Cupola and Wood Trim	$ 4,917.00	6		$ 4,917.00			
51	Re-pointing and Masonry Repairs	$ 3,974.00	7			$ 3,974.00		
26	New/Modified Toilet Room(s)	$ 36,875.00	8					
37	Construct New Restroom	$ 343,795.00	9					
54	Replace Aprons at Overhead Doors	$ 35,376.00	1	$ 35,376.00				
87	Upgrade Boiler to Gas	$ 40,741.00	2	$ 40,741.00				
88	Add Air Conditioning	$ 367,704.00	3					
74	Provide Dedicated IT Room with Cooling	$ 27,213.00	4		$ 27,213.00			
80	Upgrade Interior Lighting	$ 81,479.00	5			$ 81,479.00		
81	Upgrade Exterior Lighting	$ 15,570.00	6			$ 15,570.00		
89	Upgrade Lighting Controls	$ 97,244.00	7					
82	Replace Plumbing Fixtures with Low Flow	$ 196,759.00	8					
45	Inspect Septic System	$ 5,876.00	1	$ 5,876.00				
	TOTAL PER ANNUM			$ 93,711.00	$ 97,033.00	$ 101,023.00	$ -	$ -
	CUMULATIVE TOTALS				$ 190,744.00	$ 291,767.00	$ 291,767.00	$ 291,767.00

				YEAR				
ROW#	BUILDING: LIBRARY	COST	PRIORITIES	2014	2015	2016	2017	2018
10	Add Platform & Ramp at Door	$ 89,951.00	1	$ 89,951.00				
1	Extend Corridor for Egress	$ 21,563.00	2	$ 21,563.00				
2	Add Fire Rated Enclosure at Stairs	$ 6,698.00	3	$ 6,698.00				
3	Add Exit Signs	$ 3,493.00	4	$ 3,493.00				
4	Add Emergency Lighting	$ 22,491.00	5	$ 22,491.00				
33	Replace stair railings	$ 28,882.00	6	$ 28,882.00				
12	Provide Safer Access to AHU in Attic	$ 5,443.00	7		$ 5,443.00			
5	Upgrade Fire Alarm System	$ 106,926.00	8					$ 106,926.00
17	Add Push Button Door Operator	$ 11,509.00	1		$ 11,509.00			
42	Add Grab Bar in Toilet	$ 1,873.00	2		$ 1,873.00			
48	Repair/Paint Wood Sills	$ 12,329.00	3		$ 12,329.00			
57	Repair Rain-Leader	$ 7,193.00	4		$ 7,193.00			
61	Re-Paint Railings	$ 3,354.00	5		$ 3,354.00			
39	Add Extensions to Stair Handrails	$ 2,518.00	6		$ 2,518.00			
31	Modify Service Counters	$ 6,217.00	7			$ 6,217.00		
32	Modify/Rearrange Furnishings	$ 2,098.00	8			$ 2,098.00		
43	Re-Position Stacks	$ 10,483.00	9			$ 10,483.00		
41	Add Floor Designations to Elevator	$ 876.00	10			$ 876.00		
34	Replace Room Signage	$ 10,260.00	11			$ 10,260.00		
76	Replace Temperature Control System*	$ 161,611.00	12				$ 161,611.00	
90	Replace Mechanical Equipment	$ 830,844.00	13				$ 830,844.00	
75	Replace Light Fixture Lenses	$ 7,488.00	14					$ 7,488.00
46	Replace Sidewalk & Modify Steps	$ 238,107.00	15					
91	Provide Separate A/C Controls to Meeting Rm	$ 17,137.00	1		$ 17,137.00			
79	Add Primary/Secondary Pumping	$ 52,657.00	2				$ 52,657.00	
81	Upgrade Exterior Lighting	$ 7,449.00	3					$ 7,449.00
89	Upgrade Lighting Controls	$ 17,757.00	4					
60	Remove Ivy	$ 9,486.00	5					$ 9,486.00
64	Clean Granite	$ 52,666.00	6					$ 52,666.00
	TOTAL PER ANNUM			$ 173,078.00	$ 61,356.00	$ 29,934.00	$ 1,045,112.00	$ 184,015.00
	CUMULATIVE TOTALS				$ 234,434.00	$ 264,368.00	$ 1,309,480.00	$ 1,493,495.00

BUILDING USE AUDIT
Town of Wayland, Massachusetts

Wayland Town Hall

41 Cochituate Road

Year Constructed:
Construction Type: III B
Fire Sprinklers: Yes
Building Area per Floor:

Basement:	1,260 SF
First Floor:	32,246 SF
Second Floor:	25,300 SF
Total Area:	58,806 SF

Documents Used in Study:

Plan SD-1 dated August 16, 1976 by Johnson Hotredt & Assoc. Approved by Health Department 11-18-76

Aerial Photograph

General:

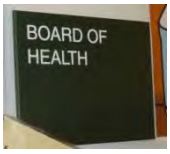
The building is partly handicapped accessible:

3 Handicapped ramp needs to have a barrier installed within 4 inches of the ramp surface to prevent wheels from going under the handrails. 29

3 Exterior stairs to gymnasium have handrails/guardrails that do not comply with ADA and codes. Replace railings with aluminum railings. 33

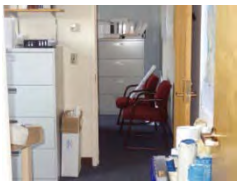
2 Doors into gymnasium are too narrow and should be replaced with un-equal width doors. and associated hardware. 24

3 Handrails on stairs do not have extensions. 19



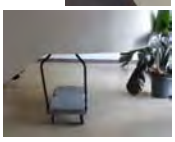
3 Room signage does not have Braille under text. 34

3 In many locations side clearances on doors are blocked by furniture. Furniture should be re-organized to provide side clearances. 32

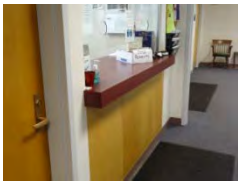


3 In other locations door clearances are blocked by partitions. If partitions cannot be modified door openers should be added. 17

3 Defibrillator cabinet is too high on wall and projects too far from wall. It should be relocated so bottom is no more than 27" above the floor and a sign added above. Otherwise a barrier upto 27 inches high needs to added below unit. 35



3 Underside of open stair has a headroom problem. A railing should be added to floor around the problem areas with the railing at 27 inches above the floor. 20



3 Public counters do not have low counters with knee spaces. Modify counters to provide accessibility. 30

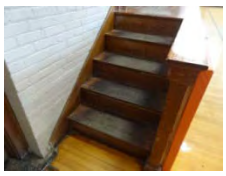
3 Access to some office areas requires lifting of counters. Remove and replace counters. Provide swinging gate with electric strike tied to push button behind counter. 31

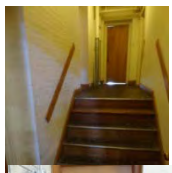
3 Employee's and Council on Aging's kitchen counters are not accessible. A knee space is required at sinks; sinks need to be replaced with shallow units; counter needs to be 34" maximum high. 22

3 Women's Room opposite Hearing Room 2 has a lavatory basin that is not accessible and faucets that require gripping. Replace sink & faucets. 36

3 Men's Room for Gymnasium is not accessible. Combine with adjacent Storage Room to create a new restroom. Include ceramic tile floors and wainscot. Remainder of walls and ceiling to be painted. New 3'x7' door with lever hardware. 37

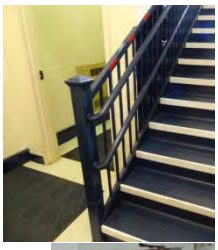
3 Nosings on steps to stage and in adjacent Corridor have projecting nosings. Add beveled wood siding to riser to eliminate projections. Add vinyl treads and risers. 18





2 Add handrails to both sides of stair in Corridor adjacent to Stage. 19

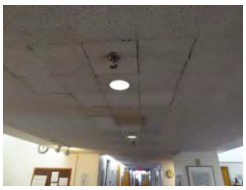
3 Replace knob-set door hardware in areas around gymnasium with lever hardware. A number of these doors are also undersized but are located in masonry walls. Swing clear butts could be added to doors to increase opening width within existing masonry openings. 23



3 Threshold from gymnasium to corridor to be replaced with threshold that does not exceed 1/2" in height. 38

3 Stair adjacent to Pre-school Elevator does not have handrail extensions at top and bottom of flights. These should be added. 39

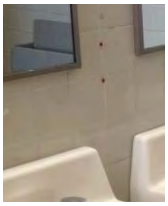
2 Door from Gymnasium to Stair to be removed and new 1 hr fire rated partition added to close opening. 6



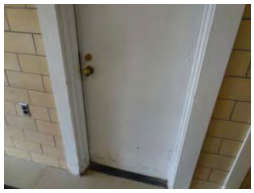
3 Ceilings access to mechanical equipment maintenance has left 12x12 tile ceilings dirty and with open joints. It is recommended that 2'x2' lay-in ceilings replace areas where ceiling access is required. 91

☐ In the course of renovation work partitions have been removed and carpet has been patched with a similar carpet. Carpet should be monitored as it appears that the seams are opening up.

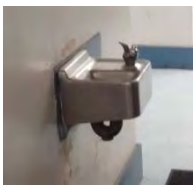
3 Over the years items have been removed from the walls in the restrooms and floors and walls have been patched. Remove wall plugs and patch tiles/grout. To remove evidence of patching walls/floors would need to be re-tiled. This was not included in the study. 92



4 Custodians closet door and frame needs to be re-painted. Door hardware to be changed to lever type. 93

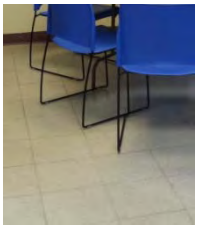


3 Rear stair to second floor to have new rubber treads and risers added. 94 Guardrail to be increased in height to 42 inches. 19

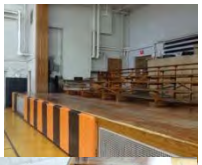


3 Wall behind drinking fountain (near gymnasium) is damaged and requires plaster repairs. Unit should be replaced with an accessible dual height fountain. 40

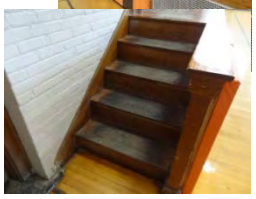
4 Vinyl floor tile in a number of locations have joints that have collected dirt giving a poor appearance to the floor. With re-organization of the floors it is recommended that sheet vinyl flooring be installed to replace tiles. In the storage rooms in the former kitchen adjacent to the Hearing Room floor tiles need to be replaced. 95



3 Add lift to gymnasium stage. 28

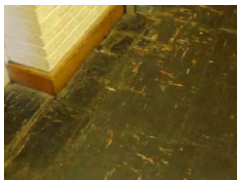


3 Surface of stage and integral steps are badly worn. Strip and re-finish floor. 96



2 Corridor adjacent to stage has floor tiles and adhesive that may contain asbestos. Remove and replace flooring with sheet flooring. 126

2 Add extension to corridor adjacent to Stage to exterior pair of doors at back of stage. Remove door to corridor and add new pair of doors to Stage. 6



3 Reportedly, negative pressures draw snow into the cupola where it melts and drips into the Attic space above the Pre-School. Remove plastic sheeting and provide a drainage pan suspended from roof structure. 97

2 The crawl space appears to be quite damp. It is recommended that a plastic vapor barrier be laid over the dirt floor and a three concrete slab placed over the vapor barrier. No slab shall be installed for the perimeter 24" and an area 24" wide through the center of the length of the crawl space. Brick vents to be added in the perimeter 15

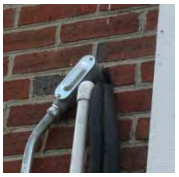
Exterior:
North-East Elevation:

2 Top of wall around north-east ramp is deteriorating and brick is now damaged. Remove and re-place top 3 courses and re-construct with new wall flashing. Replace damage brick.

2 Pilaster bases are starting to rot. Replace deteriorated wood and re-paint bases.

3 Concrete at pilaster adjacent to ramp is cracked and should be replaced.

2 Window sills are deteriorating and paint is peeling. Strip paint, consolidate wood, patch with epoxy and re-paint.



3 Add spray insulation at wall penetration. (Can be done by maintenance staff).

3 Paint doors and louver to boiler room.

2 Repair stair nosings cutting out broken material and rusted reinforcing.

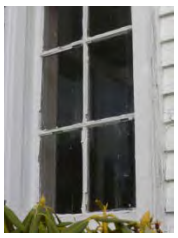
4 Remove rust from metal soffit panels and re-paint.

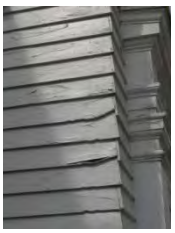
4 Clean window frames and pediments to remove plant material and cobwebs.

2 Major repairs are needed to wood fascia/gutters that are rotting and paint is failing at pre-school wing.

4 Wood frame around previous bricked up entrance needs to be scraped and repainted. 69

2 Downspout connection to gutter is leaking causing water stains on masonry. Clean out downspout and repair as needed. 63





2 Pilasters at large hearing room are separating from masonry. Add pressure treated blocking and re-secure pilasters. Replace missing trim at sides. 89

2 Windows at large hearing room vestibule require removal and re-puttying of some panes of glass. Strip and re-paint windows. 61

3 Repair siding at vestibule with new boards. Strip and re-paint siding. 53

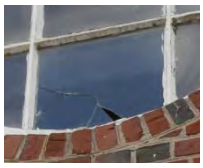
2 Repair pilaster base at vestibule.

2 Window sills from hearing room to gymnasium, are deteriorating and need repairs and re-painting.

2 Pilaster base at gymnasium needs to be repaired and re-painted.

3 Re-paint cornice at top of pediment at gymnasium.59

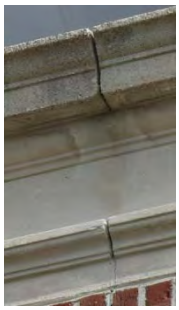
2 Re-place broken glass at round window at gymnasium. 110



North-West Elevation of gymnasium.

3 Clean cornice to remove plant material and cobwebs.

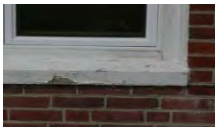
South-West Elevation:



2 Cast stone cornice has open joints that need to be re-pointed.

2 Major repairs are needed to wood fascia/gutters that are rotting and paint is failing at pre-school wing.

South East Elevation:



2 Some window sills are deteriorating and paint is peeling. Strip paint, consolidate wood, patch with epoxy and re-paint.

3 Reportedly, negative pressures draw snow into the cupola where it melts and drips into the Attic space above the Pre-School. Remove plastic sheeting and provide a drainage pan suspended from roof structure.

2 The crawl space is quite damp. It is recommended that a plastic vapor barrier be laid over the dirt floor and a three concrete slab placed over the vapor barrier. No slab shall be installed for the perimeter 24" and an area 24" wide through the center of the length of the crawl space. Brick vents to be added in the perimeter walls sufficient for code required ventilation. This will reduce the humidity level yet still allow for potential flooding without slab damage.

Mechanical Systems:

4 Replace the existing pneumatic temperature control system with a direct digital control (DDC) system.

4 If the above is not adopted then the following would be lower cost alternates to improve building comfort:

A. Replace/reconfigure temperature control zones that are served by a single reheat coil but consist of both interior and exterior spaces, such that the interior and exterior areas of those zones have dedicated reheat coils.

B. Convert the three central air handling systems to dedicated outside air systems, and providing one of several possible options for local air conditioning; variable refrigerant volume (VRV) systems; chilled water based fan coil or chilled beam systems; and conventional or ground source air to water heat pump systems.

4 Replace the unit ventilators in the pre-school classrooms with quieter (non unit ventilator) systems.

4 Replace the three lead/lag pumps sets and accessories with a single lead/lag pump set with variable frequency drives (VFD) for energy and maintenance savings.

4 Add a primary/secondary pumping system to the heating plant, to reduce operating costs and improving comfort.

Electrical

4 Upgrade existing building main electrical service equipment and power distribution equipment throughout Town Hall area of building.

4 Upgrade existing interior lighting throughout the Town Hall area of the building to new more energy efficient lighting.

4 Incorporate new automatic lighting controls throughout the facility to comply with latest energy code and increase energy efficiency.

4 Upgrade existing exterior lighting to new more energy efficient LED lighting which will also perform better in colder temperatures.

2 Replace existing fire alarm devices in Town Hall area of the building with new addressable fire alarm devices to meet the latest codes.

4 Upgrade existing emergency standby generator and connect to existing automatic transfer switch to serve select building circuits such as heating equipment which may be needed during a power outage.

Plumbing

4 Replace the water closets with low flow water closets. Provide accessible water closets where required.

4 Replace the urinals with low flow urinals.

Fire Protection

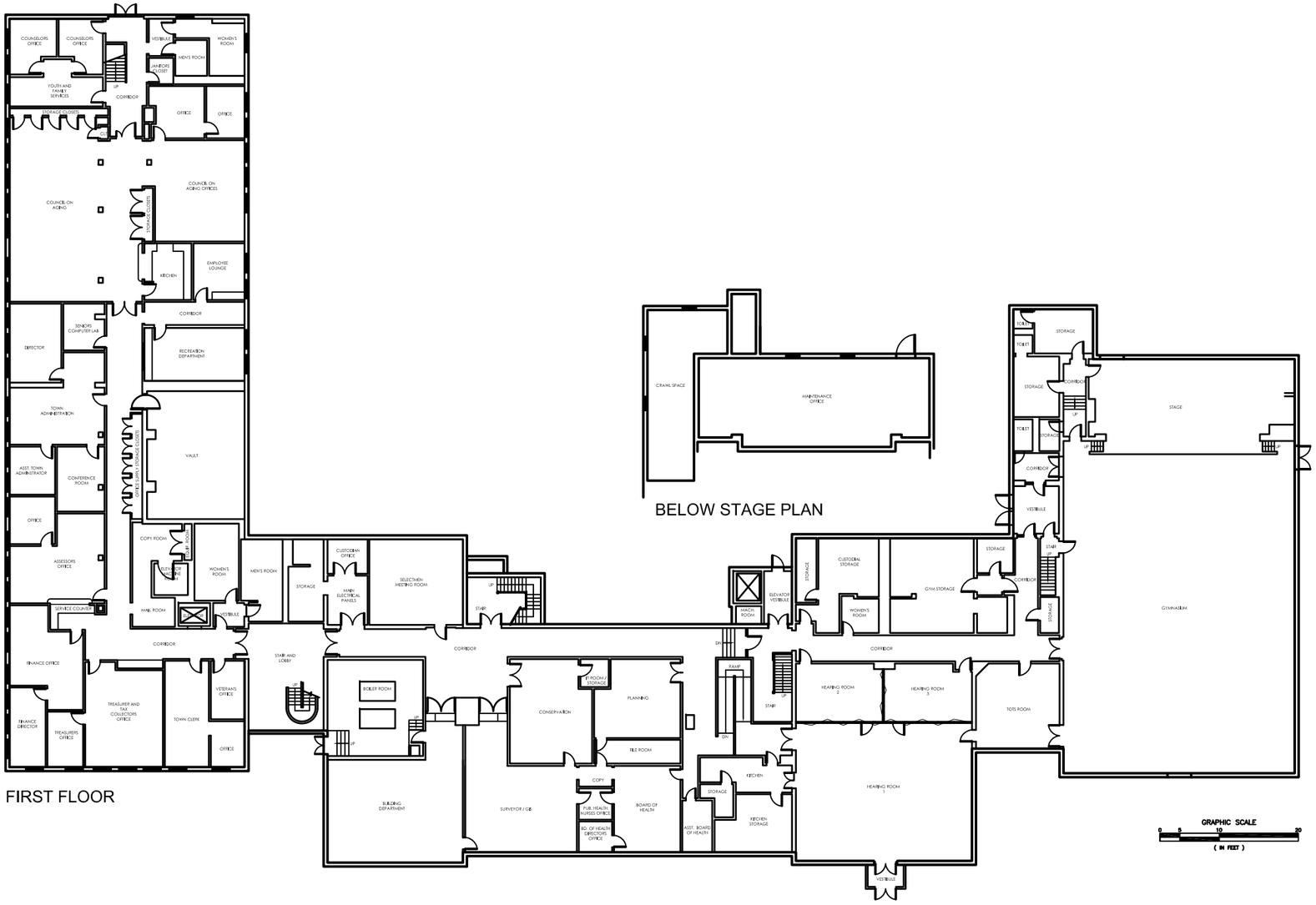
2 Provide proper support of the backflow preventer in the boiler room.

Expansion Considerations:

As noted in the structural report, the floors of the building are adequate for typical office use. This loading is appropriate for town offices, some spaces within the Council on Aging, and the School Department. Large assembly spaces and library use will require a higher floor capacity. Reinforcing the first floor is possible by constructing new framing within the crawl space. For obvious reasons this would be difficult to accomplish and therefore have a high cost associated with it.

The septic system was installed in the mid 1970's with an off-site leaching field located to the south-west of the Lodge building on Cochituate Road. A 4" PVC pressure main is used to reach the leaching field.
If an addition is placed on the current building from the south-east wing towards the north-east the septic tank and dousing chamber will need to be re-located. It cannot be closer than 10 feet from the foundations of the building. This relocation may or may not be approved by Conservation. The septic field has not been checked and due to its age will most likely need to be replaced. A possible alternative would be to connect to the new treatment plant at Town Center.

Approximately 174 parking spaces are available on the site.



FIRST FLOOR

BELOW STAGE PLAN

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

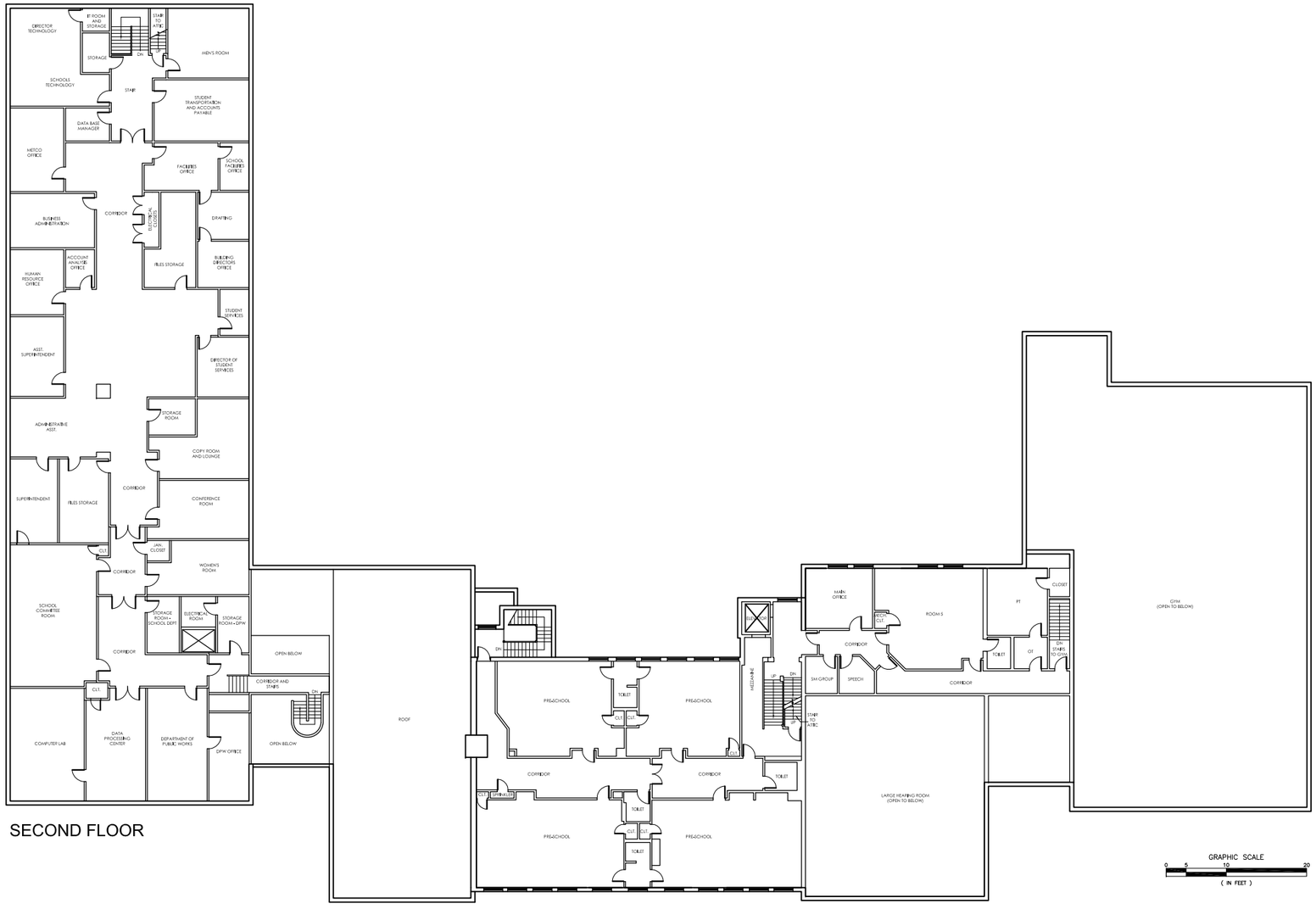
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
EXISTING

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

THE-1



SECOND FLOOR

D·R·A

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

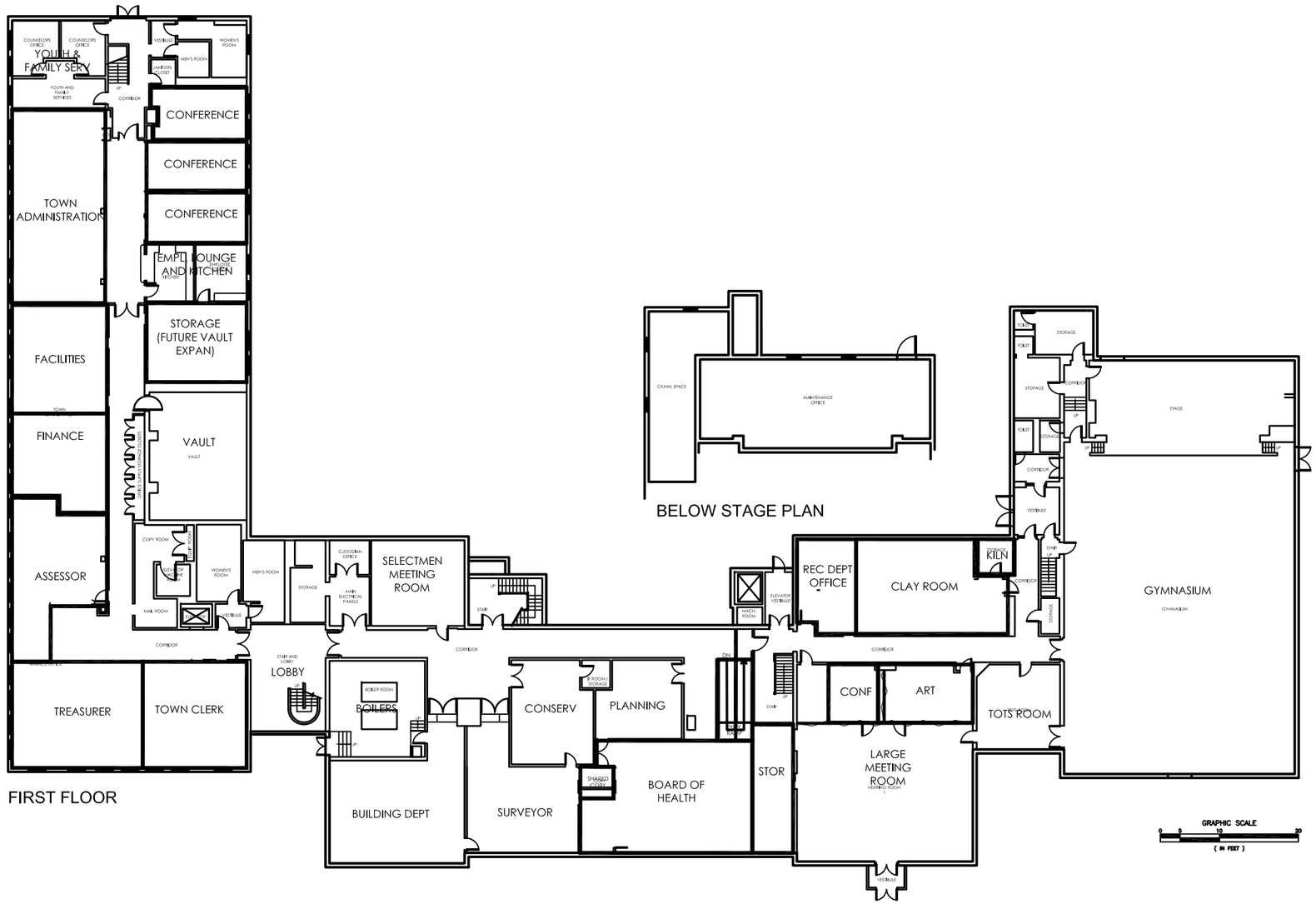
Planning	617-964-1700
Architecture	617-964-1701 fax
Interior Design	info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
EXISTING

Scale:	1/32"=1'-0"
Drawn by:	CGH
Job No.	13003.00
Date:	4/5/13

THE-2



Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

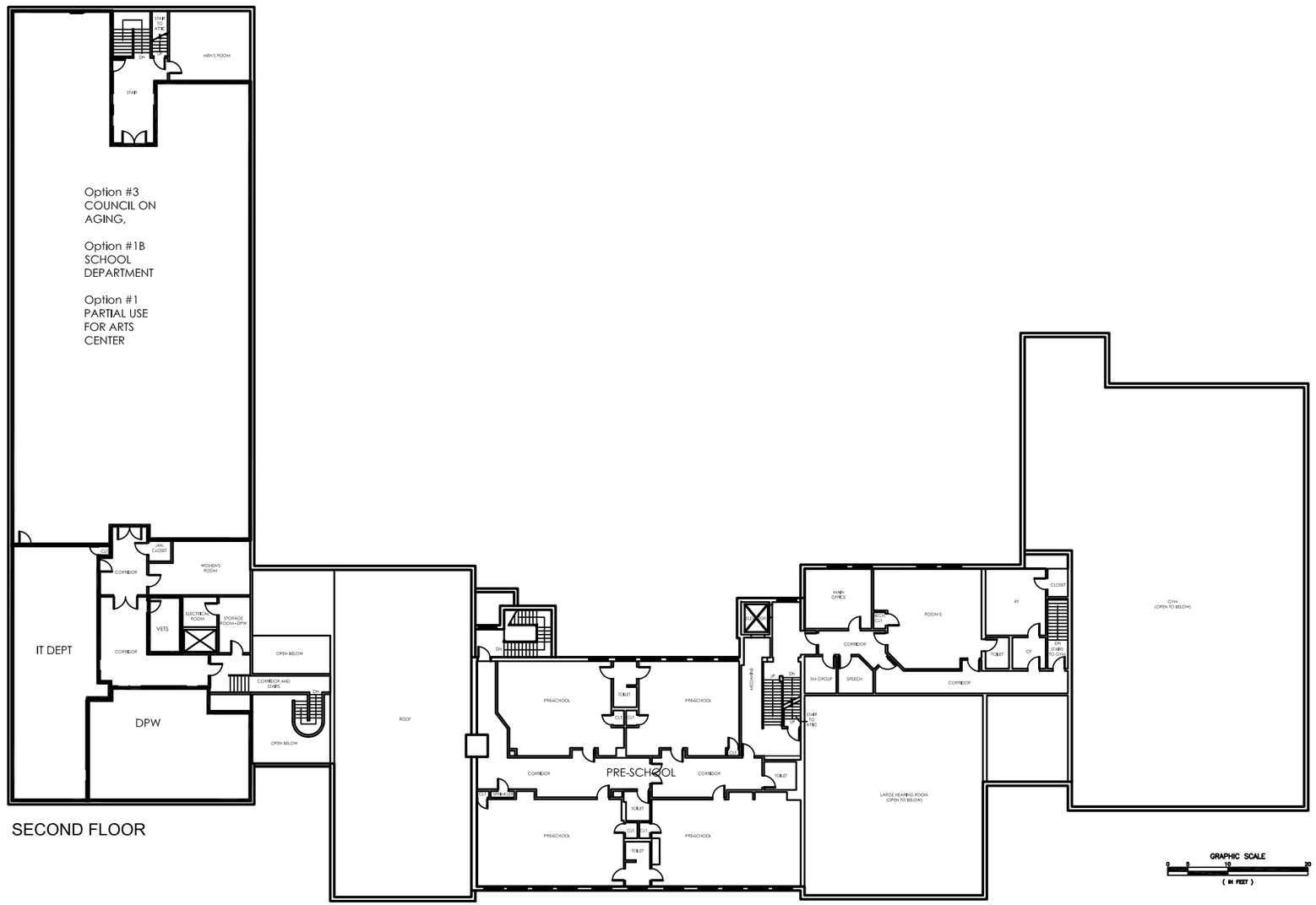
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
TOWN DEPARTMENT RE-CONFIGURATION
Options #1, 1B, 2, 2B, 3, 3B & 5.

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

THP-1



SECOND FLOOR

D·R·A

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

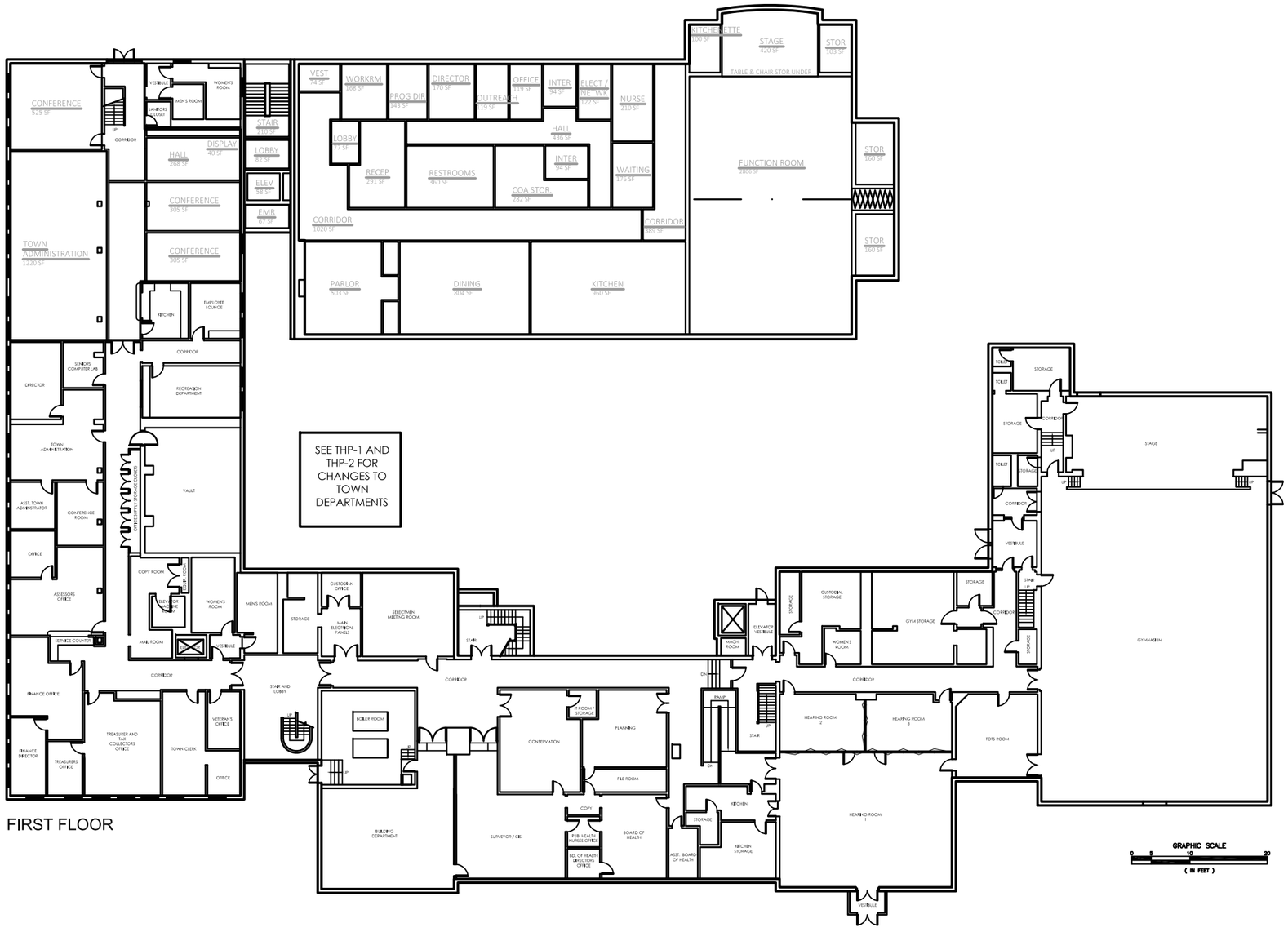
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
TOWN DEPARTMENT RE-CONFIGURATION
Options #1, 1B, 2, 2B, 3, 3B & 5.

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

THP-2



FIRST FLOOR

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

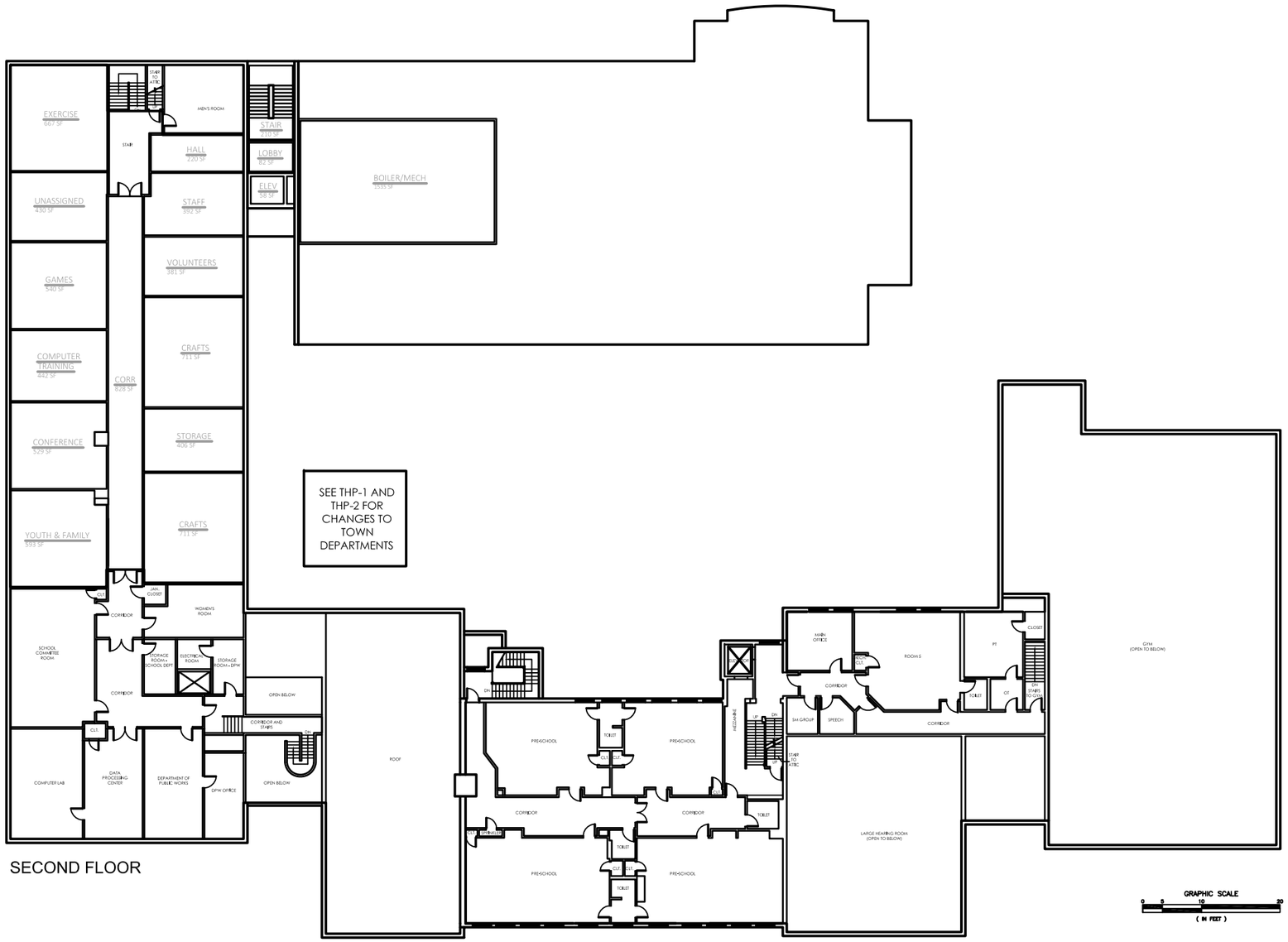
Planning	617-964-1700
Architecture	617-964-1701 fax
Interior Design	info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
COUNCIL-ON-AGING Options # 3, 3B, 4 & 5

Scale:	1/32"=1'-0"
Drawn by:	CGH
Job No.	13003.00
Date:	4/5/13

COA-1



SECOND FLOOR

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

TOWN HALL BUILDING
COUNCIL-ON-AGING Options # 3, 3B, 4 & 5

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

COA-2

BUILDING USE AUDIT
Town of Wayland

SPACE	Existing Building	KK Diagrams SF	Diagrams less Program SF	Free Standing New Building Diagrams 2013	Diagrams less SF	New Building with Library Diagrams 2013	Diagrams less Program SF	COA In Town Hall Diagrams 2013	Diagrams less Program SF
Reception Lobby		0		77	77	75	75	77	77
Reception		200		306	106	250	50	291	91
Workroom		200		175	-25	175	-25	168	-32
Program Director		150		150	0	150	0	143	-7
Director		200		177	-23	175	-25	170	-30
Outreach		120		126	6	120	0	119	-1
Office		120		126	6	120	0	119	-1
Interview		120		100	-20	100	-20	94	-26
Interview		120		100	-20	100	-20	94	-26
Nurse		180		180	0	180	0	210	30
Nurse Waiting Room		220		175	-45	175	-45	176	-44
Display Cases		0		42	42	46	46	40	40
Games		500		512	12	678	178	540	40
Exercise		600		595	-5	600	0	667	67
Crafts		500		557	57	550	50	711	211
Crafts		500		557	57	630	130	711	211
Conference		500		408	-92	400	-100	529	29
Computer Training		400		432	32	430	30	442	42
Volunteers		265		264	-1	265	0	381	116
Staff Room		300		300	0	300	0	392	92
Network Room		260		69	-191	140	-120	122	-138
COA Storage		300		348	48	340	40	282	-18
Parlor		460		525	65	516	56	503	43
Dining		800		835	35	830	30	804	4
Kitchen		1200		1080	-120	1070	-130	960	-240
Function Rm & Stage		3243		3309	66	3308	65	3226	-17
Kitchenette		135		100	-35	80	-55	100	-35
Sub-Total		11593		11625	32	11803	210	12071	478
Un-Assigned Space				5389					
Total SF				17014					

Shared Spaces

BUILDING USE AUDIT
Town of Wayland

Wayland Town Buildings Study

TOWN BUILDING

Existing Spaces -- Whole Building

Room:	Net Area	Dept.	Comment
Assessors Office	447	Assessor	
Office	139	Assessor	
Building Department	997	Bldg	
Tots Room	450	Children	
Pre-school Classroom	648	Children	
Pre-school Classroom	596	Children	
Pre-school Classroom	808	Children	
Pre-school Classroom	838	Children	
Toilet	68	Children	
Closet	10	Children	
Closet	10	Children	
Closet	5	Children	
Toilet	69	Children	
Closet	10	Children	
Closet	12	Children	
Closet	5	Children	
Main Office	251	Children	
Room 5	603	Children	
Lounge	74	Children	
Speech	75	Children	
PT	251	Children	
OT	65	Children	
Toilet	46	Children	
Closet	36	Children	
Childrens Way -- Net Total		4,930	
Vault	789	Clerk	
Town Clerk	404	Clerk	
Council on Aging	2,128	COA	
Storage Closets	44	COA	
Closet	6	COA	
Storage Closets	30	COA	
Kitchen	171	COA	
Seniors Computer Lab	120	COA	
Office	175	COA	
Office	128	COA	
Council on Aging -- Net Total		2,802	
Conservation	524	Conserv	
Storage (half of room)	26	Conserv	
Department of Public Works	418	DPW	
DPW Office	219	DPW	
Storage Room	113	DPW	
Facilities Office	204	Facilities	
School Facilities Office	86	Facilities	
Drawing Review	150	Facilities	
Building Directors Office	148	Facilities	
Finance Office	375	Finance	
Finance Director	184	Finance	
Supply Closets	71	General	
Copy, Mail Room	243	General	
Lobby and Stairs	565	General	
Storage	176	General	
Kitchen	168	General	
Storage	53	General	
Hearing Room	1,554	General	
Hearing Room 2	323	General	
Hearing Room 3	317	General	
Storage	85	General	
Custodial Storage	298	General	
Storage	165	General	
Office Storage	66	General	
Storage Room	110	General	
Employee Lounge	185	General	
Gym Storage	578	Gym	
Storage	81	Gym	
Storage	43	Gym	
Gymnasium	4,764	Gym	
Stage	1,190	Gym	
Storage	41	Gym	
Storage	178	Gym	
Gym -- Net Total		6,875	
File Room	131	Health	
Copy	44	Health	
Board of Health	366	Health	
Public Health Nurse	66	Health	
Board of Health Director	65	Health	
Assistant Board of Health	99	Health	
Computer Lab	518	IT	
Data Processing Center	399	IT	
Closet	21	IT	
Planning	404	Planning	
Recreation Dept	340	Rec Dept	
Maintenance Office	1,259	Rec Dept	
School Technology Director	208	Schools	
School Technology	276	Schools	
Closet	38	Schools	
METCO Office	278	Schools	
Database Manager	90	Schools	
Sec	136	Schools	
Business Administration	284	Schools	
Account Analyst	68	Schools	
Human Resources	217	Schools	
Secretaries and Files	355	Schools	
Assistant Superintendent	265	Schools	
Administrative Assistant	361	Schools	
Superintendent	247	Schools	
File Storage	257	Schools	
School Committee Room	754	Schools	
Closet	7	Schools	
Conference	333	Schools	
Copy Room and Lounge	363	Schools	
Storage Room	105	Schools	
Secretaries and Files	388	Schools	
Director of Student Services	192	Schools	
Student Services	83	Schools	
File Storage	247	Schools	
Student Transportation	359	Schools	
Corridor	903	Schools	
School Department -- Net Total		6,814	
Selectmen Meeting Room	513	Selectmen	
Surveyor / GIS	749	Surveyor	
Town Administrator	262	Town Admin	
Town Administration	437	Town Admin	
Human Resources	140	Town Admin	
Conference	198	Town Admin	
Kitchen Storage	253	Town Admin	
Treasurers Office	127	Treas	
Treasurers and Tax Collector Office	529	Treas	
Veterans Office	126	Vet	
Counselors Office	150	Youth and Fam Serv	
Counselors Office	140	Youth and Fam Serv	
Waiting, Sec, Files	208	Youth and Fam Serv	
Subtotal of net spaces:	**38,567**	**70%**	
Mech., toil., circul., structure	16,234	30%	
TOTAL Gross Square Feet:	**54,800**	**100%**	

BUILDING USE AUDIT
Town of Wayland

Wayland Town Buildings Study

TOWN BUILDING

Existing Spaces

Room:	Net Area	Dept.	Comment
Assessors Office	447	Assessor	
Office	139	Assessor	
Building Department	997	Bldg	
Vault	789	Clerk	
Town Clerk	404	Clerk	
Conservation	524	Conserv	
Storage (half of room)	26	Conserv	
Department of Public Works	418	DPW	
DPW Office	219	DPW	
Storage Room	113	DPW	
Facilities Office	204	Facilities	
School Facilities Office	86	Facilities	
Drawing Review	150	Facilities	
Building Directors Office	148	Facilities	
Finance Office	375	Finance	
Finance Director	184	Finance	
Supply Closets	71	General	
Copy, Mail Room	243	General	
Lobby and Stairs	565	General	
Storage	176	General	
Kitchen	168	General	
Storage	53	General	
Hearing Room	1,554	General	
Hearing Room 2	323	General	
Hearing Room 3	317	General	
Storage	85	General	
Custodial Storage	298	General	
Storage	165	General	
Office Storage	66	General	
Storage Room	110	General	
Employee Lounge	185	General	
File Room	131	Health	
Copy	44	Health	
Board of Health	366	Health	
Public Health Nurse	66	Health	
Board of Health Director	65	Health	
Assistant Board of Health	99	Health	
Computer Lab	518	IT	
Data Processing Center	399	IT	
Closet	21	IT	
Planning	404	Planning	
Recreation Dept	340	Rec Dept	
Maintenance Office	1,259	Rec Dept	
Selectmen Meeting Room	513	Selectmen	
Surveyor / GIS	749	Surveyor	
Town Administrator	262	Town Admin	
Town Administration	437	Town Admin	
Human Resources	140	Town Admin	
Conference	198	Town Admin	
Kitchen Storage	253	Town Admin	
Treasurers Office	127	Treas	
Treasurers and Tax Collector Office	529	Treas	
Veterans Office	126	Vet	
Counselors Office	150	Youth and Fam Serv	
Counselors Office	140	Youth and Fam Serv	
Waiting, Sec, Files	208	Youth and Fam Serv	
Subtotal of net spaces:	**17,146**	**70%**	
Mech., toil., circul., structure	7,348	30%	
TOTAL Gross Square Feet:	**24,494**	**100%**	

Wayland Town Buildings Study

CHILDRENS WAY

Existing Spaces

Room:	Net Area	Dept.	Comment
Tots Room	450	Children	
Pre-school Classroom	648	Children	
Pre-school Classroom	596	Children	
Pre-school Classroom	808	Children	
Pre-school Classroom	838	Children	
Toilet	68	Children	
Closet	10	Children	
Closet	10	Children	
Closet	5	Children	
Toilet	69	Children	
Closet	10	Children	
Closet	12	Children	
Closet	5	Children	
Main Office	251	Children	
Room 5	603	Children	
Lounge	74	Children	
Speech	75	Children	
PT	251	Children	
OT	65	Children	
Toilet	46	Children	
Closet	36	Children	
Subtotal of net spaces:	**4,930**	**70%**	
Mech., toil., circul., structure	2,113	30%	
TOTAL Gross Square Feet:	**7,043**	**100%**	

Wayland Town Buildings Study

COUNCIL ON AGING

Existing Spaces

Room:	Net Area	Dept.	Comment
Council on Aging	2,128	COA	
Storage Closets	44	COA	
Closet	6	COA	
Storage Closets	30	COA	
Kitchen	171	COA	
Seniors Computer Lab	120	COA	
Office	175	COA	
Office	128	COA	
Subtotal of net spaces:	**2,802**	**70%**	
Mech., toil., circul., structure	1,201	30%	
TOTAL Gross Square Feet:	**4,003**	**100%**	

Wayland Town Buildings Study

GYMNASIUM

Existing Spaces

Room:	Net Area	Dept.	Comment
Gym Storage	578	Gym	
Storage	81	Gym	
Storage	43	Gym	
Gymnasium	4,764	Gym	
Stage	1,190	Gym	
Storage	41	Gym	
Storage	178	Gym	
Subtotal of net spaces:	**6,875**	**70%**	
Mech., toil., circul., structure	2,946	30%	
TOTAL Gross Square Feet:	**9,821**	**100%**	

Wayland Town Buildings Study

SCHOOL DEPARTMENT

Existing Spaces

Room:	Net Area	Dept.	Comment
School Technology Director	208	Schools	
School Technology	276	Schools	
Closet	38	Schools	
METCO Office	278	Schools	
Database Manager	90	Schools	
Sec	136	Schools	
Business Administration	284	Schools	
Account Analyst	68	Schools	
Human Resources	217	Schools	
Secretaries and Files	355	Schools	
Assistant Superintendent	265	Schools	
Administrative Assistant	361	Schools	
Superintendent	247	Schools	
File Storage	257	Schools	
School Committee Room	754	Schools	
Closet	7	Schools	
Conference	333	Schools	
Copy Room and Lounge	363	Schools	
Storage Room	105	Schools	
Secretaries and Files	388	Schools	
Director of Student Services	192	Schools	
Student Services	83	Schools	
File Storage	247	Schools	
Student Transportation	359	Schools	
Subtotal of net spaces:	**5,911**	**70%**	
Mech., toil., circul., structure	2,533	30%	
TOTAL Gross Square Feet:	**8,444**	**100%**	

Wayland Town Buildings Study

TOWN BUILDING

Proposed Spaces

Room:	Net Area	Dept.	Comment
Assessors Office	447	Assessor	
Counter Space	100	Assessor	Larger counter, HC accessible
Office	139	Assessor	
Building Department	1,200	Bldg	More space for files
Vault	1,000	Clerk	Larger for ballot storage
Town Clerk	750	Clerk	Larger counter, larger office
Conservation	524	Conserv	More space for files
Conservation Office	140	Conserv	Private office added for meetings
Storage (half of room)	26	Conserv	
Department of Public Works	418	DPW	
DPW Office	219	DPW	
Storage Room	113	DPW	
Facilities Office	204	Facilities	
School Facilities Office	86	Facilities	
Drawing Review	150	Facilities	
Archive Storage	200	Facilities	In attic now
Building Directors Office	148	Facilities	
Maintenance Shop	1,259	Facilities	
Finance Office	375	Finance	
Finance Director	184	Finance	
Supply Closets	71	General	
Copy, Mail Room	243	General	
Lobby and Stairs	565	General	
Storage	176	General	
Kitchen	168	General	
Hearing Room	1,554	General	
Hearing Room 2	323	General	
Hearing Room 3	317	General	
Conference	300	General	Additional meeting space
Conference	300	General	Additional meeting space
Conference	300	General	Additional meeting space
Storage	85	General	
Custodial Storage	298	General	
Storage	165	General	
Office Storage	66	General	
Storage Room	110	General	
Employee Lounge	240	General	Larger
File Room	131	Health	
Copy	120	Health	Shared space, work table
Board of Health	466	Health	Added counter space
Public Health Nurse	200	Health	Larger to serve patients
Board of Health Director	200	Health	Larger for meetings
Assistant Board of Health	150	Health	Larger for plan review desk
Storage	100	Health	Larger for refrigerated storage
Computer Lab	518	IT	
Data Processing Center	399	IT	
Closet	21	IT	
Planning	404	Planning	
Recreation Dept	340	Rec Dept	Location to supervise gym
Selectmen Meeting Room	513	Selectmen	
Surveyor / GIS	749	Surveyor	
Town Administrator	262	Town Admin	
Town Administration	437	Town Admin	
Human Resources	140	Town Admin	
Exec Asst to Board of Selectmen	120	Town Admin	Position added
Conference	198	Town Admin	
File Storage	200	Town Admin	File space added
Kitchen Storage	253	Town Admin	
Treasurers Office	127	Treas	
Treasurers and Tax Collector Office	700	Treas	Larger counter
Veterans Office	126	Vet	
Counselors Office	150	Youth and Fam Serv	
Counselors Office	140	Youth and Fam Serv	
Waiting, Sec, Files	208	Youth and Fam Serv	
Subtotal of net spaces:	**20,335**	**70%**	
Mech., toil., circul., structure	8,715	30%	
TOTAL Gross Square Feet:	**29,049**	**100%**	

Wayland Town Buildings Study

CHILDRENS WAY

Proposed Spaces

Room:	Net Area	Dept.	Comment
Tots Room	450	Children	
Pre-school Classroom	648	Children	
Pre-school Classroom	596	Children	
Pre-school Classroom	808	Children	
Pre-school Classroom	838	Children	
Toilet	68	Children	
Closet	10	Children	
Closet	10	Children	
Closet	5	Children	
Toilet	69	Children	
Closet	10	Children	
Closet	12	Children	
Closet	5	Children	
Main Office	251	Children	
Room 5	603	Children	
Lounge	74	Children	
Speech	75	Children	
PT	251	Children	
OT	65	Children	
Toilet	46	Children	
Closet	36	Children	
Subtotal of net spaces:	**4,930**	**70%**	
Mech., toil., circul., structure	2,113	30%	
TOTAL Gross Square Feet:	**7,043**	**100%**	

Wayland Town Buildings Study

GYMNASIUM

Proposed Spaces

Room:	Net Area	Dept.	Comment
Gymnasium	4,764	Gym	
Gym Storage	900	Gym	Additional gym storage
Storage	81	Gym	
Storage	43	Gym	
Stage	1,190	Gym	
Storage	41	Gym	
Storage	178	Gym	
Subtotal of net spaces:	**7,197**	**70%**	
Mech., toil., circul., structure	3,084	30%	
TOTAL Gross Square Feet:	**10,281**	**100%**	

Wayland Town Buildings Study

SCHOOL DEPARTMENT

Proposed Spaces

Room:	Net Area	Dept.	Comment
Reception Area	400	Schools	Added to receive visitors
School Technology Director	208	Schools	
School Technology	276	Schools	
Closet	38	Schools	
METCO Office	278	Schools	
Database Manager	90	Schools	
Sec	136	Schools	
Business Administration	284	Schools	
Account Analyst	68	Schools	
Human Resources	217	Schools	
Secretaries and Files	355	Schools	
Assistant Superintendent	265	Schools	
Administrative Assistant	361	Schools	
Superintendent	265	Schools	
File Storage	257	Schools	
School Committee Room	754	Schools	
Closet	7	Schools	
Conference	333	Schools	
Conference	300	Schools	Additional meeting space
Copy Room and Lounge	363	Schools	
Storage Room	105	Schools	
Secretaries and Files	388	Schools	
Director of Student Services	192	Schools	
Student Services	83	Schools	
File Storage	400	Schools	More file storage
Student Transportation	359	Schools	
Subtotal of net spaces:	**6,782**	**70%**	
Mech., toil., circul., structure	2,907	30%	
TOTAL Gross Square Feet:	**9,689**	**100%**	

COMPREHENSIVE BUILDING/PROGRAM AUDIT
Town of Wayland, Massachusetts

Town Building

Structural

Structural Description:

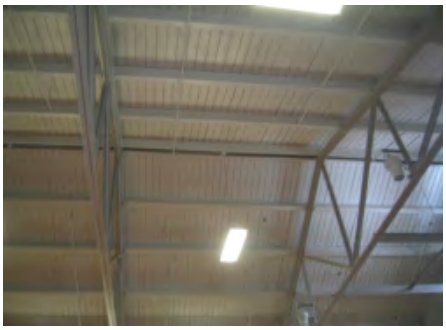
The Town Building is a two-story, 60,000+/- square feet, wood framed structure, located at 41 Cochituate Road in Wayland. Foundations appear to be conventional spread footings. The site is relatively level. The First Floor of the facility is structured over a crawl space (earth floor; approximately 4'-6" deep), which appears to extend over most of the building footprint. The building was originally constructed as a High School in the 1940's and was subsequently converted to a Junior High School. In 1976, the building was renovated and altered to house the Town Offices. A major renovation of the Town Building was undertaken in 1990. New elevator and stair additions were constructed on the south side of the central wing at that time. Since 1990, limited renovations/repairs to the facility have occurred. No original construction drawings for the building were available; however, drawings for the 1990 renovations and subsequent renovation/repairs were reviewed in the preparation of this report.

The two-story east wing (originally classrooms) is rectangular in plan, with a sloped (gable) roof. Program elements at the First Floor include the financial and administrative offices, as well as the Council on Aging at the south end. An elevator is located near the front (north) end of this wing, servicing the First and Second Floors. First Floor construction is wood framed, with 3 x 14 (nominal) wood joists, spaced at 14"o.c., spanning 24+/- feet from the exterior, brick masonry bearing walls to interior walls/beams located on either side of the central corridor (12+/- feet wide). Second Floor construction (School Department) was obscured by finishes, but is assumed to be similar. Roof construction consists of 2 x 11 rafters at 16" o.c. supported at the exterior walls and at the interior (corridor) bearing lines. The Attic Floor (currently used for storage) is wood framed; the joist size is unknown. Additional lines of support were added and existing joists were reinforced in the Council on Aging space during the 1990 renovation, increasing the capacity of this floor to 100 psf or higher. A damaged section of the First Floor construction in this wing was removed and reconstructed in 2008 (north end; water/insect damage); the new floor structure was designed for a 100 psf live load. Exterior walls are brick and terra cotta construction.

The two-story (plus Attic) central wing appears to be wood framed construction as well. Program elements in this wing include the Building Department, the Board of Health and a (depressed) Boiler Room at the First Floor and the Pre-School at the Second Floor. The gable roof of this wing is structured with 2 x 11 rafters at 16" o.c., supported at the exterior walls and at the interior (corridor) bearing lines (4 x 8 continuous beams spanning to 4 x 6 posts spaced at 6+/- feet on centers). The Attic Floor (Pre-School Storage) is wood framed; the joist size is unknown. A centrally located, wood framed cupola identifies this wing. Exterior walls are brick and terra cotta construction.

To the west of the central wing, there are large and small Hearing Rooms (separated by a folding partition), with support spaces to the south. Interior wall surfaces are exposed concrete block (CMU). This wing has a flat roof; the structure is unknown (obscured by a hung ceiling). The First Floor of this section is approximately 2'-6" lower than the First Floor of the central wing and is accessed by stairs (4 risers), a ramp and an elevator.

The Town Gym (original Gym/Auditorium, with a stage at the south end) is located at the northwest corner of the complex. Gable roof construction over the Gym consists of timber deck spanning up the slope to timber purlins. The purlins span across the slope (approximately 16 feet) to steel trusses (4 equally spaced), which clear span the space. Perimeter walls are brick masonry construction. See photo at right.



Roof construction throughout the complex is unprotected wood and steel framing. Second Floor construction may be protected (to a degree) by the plaster and lath/drywall ceilings and beam encasements. The facility is fully sprinklered.

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

Structural conditions at the Town Building were observed during a brief tour of the facility on March 11, 2013. Generally speaking, floor and roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members. Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements.

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

- The condition of the exterior brick is generally satisfactory; repointing is required in some areas. Brick masonry and cast stone trim at the northwest corner of the large Hearing Room section is deteriorating and shows efflorescence (See photo at right). Similar conditions are present on the back (south side of the building, adjacent to the east wing).

Loose lintels are rusted in some cases (although not significantly); cleaning and painting is required. Loose lintels at all locations conditions should be inspected and evaluated in conjunction with future renovations to the building.

- The brick walls along the ramp leading to the south entrance of the east wing are deteriorating and require repair.

- Wood trim generally appears to be in satisfactory condition (sanding/painting required); however, there are sections of the gutter on the south side of the building that have rotted and require repair/replacement.

- Reportedly, negative pressures draw snow into the cupola where it melts and drips into the Attic space above the Pre-School. Presently, a makeshift system of poly sheets catches and holds the water until it evaporates. A permanent solution should be implemented in conjunction with future renovations to the facility.

- Elsewhere, the is evidence of past/current roof leaks (e.g. the south end of the east wing). As roof construction is wood framed, continuing maintenance of the roof is particularly important.

- The crawl space appears to be quite damp. As noted above, First Floor framing has suffered moisture and insect damage in the past. An inspection of First Floor framing should be conducted and moisture issues should be addressed (supplemental drainage, ventilation, etc.) in conjunction with future renovations to the facility.

- The live load capacity of the original floor framing (3 x 14 joists) is approximately 50 to 60 psf; which is suitable for office use, but not for public assembly areas (100 psf) or library use (up to 150 psf, depending on the density of fixed book shelving).

- The capacity of the sloping roof structure appears to be minimal and does not meet current snow load requirements for Wayland. Lower, flat roof areas may not have adequate capacity to support drifting/sliding snow loads from higher roof areas. Further evaluation is recommended, in conjunction with future renovations to the facility.

Building Code Requirements and Additional Comments:

Massachusetts State Building Code Requirements – General Comments:

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

The MEBC allows the Design Team to choose one of three (3) compliance methods. Structurally, the Prescriptive Compliance Method is preferred. Regardless of the compliance method chosen, the MEBC may require that the unreinforced masonry walls of the building be evaluated with respect to the provisions of Appendix A1 of the IEBC (depending on the extent of the renovation/alteration work and/or proposed change(s) in use). In addition, Section 101.5.4.0 of the Massachusetts Amendments (Chapter 34) would require that the existing building be investigated in sufficient detail to ascertain the effects of any proposed work (or change in use) in the area under consideration, and the entire building or structure and its foundations, if impacted by the proposed work or change in use.

Additions – General Comments:

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

Renovations/Alterations – General Comments:

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

End of Structural Report

TOWN BUILDING ASSESSMENT STUDY AND CAPITAL MASTER PLAN
Town of Wayland, Massachusetts

Town Hall

41 Cochichuate Road

MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS

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

April 5, 2013

GENERAL

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

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

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

MECHANICAL

HEATING

The heating plant generally consists of two cast iron hot water boilers with natural gas burners. Both the boilers and the burners appear to be in fair condition. A lead/lag controller in the boiler room automatically switches the function of the lead and lag boilers.

Combustion air is provided for the boilers via a louver above the outside door of the boiler room and an opening thru the roof of the boiler room.

Heating water plant accessories, including an expansion tank and an air separators, as would be typical for such heating plants, are provided. The accessories generally appear to be in fair condition.

The hot water circulation system generally consists of three sets of base mounted lead/lag pumps. The pumps and accessories appear to be in fair to poor condition.

Each pump set is configured such that the lag pump operates automatically upon failure of the lead pump. Each lead/lag pump set is connected to dedicated HWS and HWR mains, such that there are three distinct hot water loops in the building.

The exposed hot water heating terminal units include baseboard convectors, cabinet unit heaters, unit heaters, and unit ventilators, and these units range in condition from poor to good. There also are numerous concealed duct mounted hot water reheat coils, and the condition of these units was not reviewed.

CENTRAL AIR HANDLING/CONDITIONING & VENTILATION

The central air handling and ventilation systems generally consist of two air handling units (AHUs) in the attic and a roof mounted constant volume packaged air conditioning unit (RTU).

The two AHUs in the attic are constant volume built-up/modular type air handling units generally consisting of a supply fan section, a hot water pre-heat coil section, a direct expansion (DX) refrigerant evaporator coil section, a filter section, and an outside/return air mixing section. These AHUs appear to be in fair condition.

The two AHUs in the attic are paired with constant volume utility set configured centrifugal return/exhaust air fans in the attic, which appear to be in good to fair condition, and with grade mounted refrigerant condensing units, which appear to be in good condition.

These two air handling systems are configured to provide up to 100% outside air economizer cooling via louvers at the gable ends of the attic.

All three units deliver a constant volume of supply air to multiple zones, and each of those multiple zones is provided with a duct mounted reheat coil. Additionally, perimeter zones are provided with terminal heating units - typically baseboard convectors. However, many of the zones served by reheat coils consist of both interior and exterior zones, a configuration that often leads to poor temperature control throughout much of the year for the space(s) without thermostats, which are typically the interior spaces.

In general, the design concept behind these three systems is not uncommon for systems of this vintage, however the performance of this system, both in terms of energy efficiency and temperature control, would not be considered acceptable by current standard practice. The main issue with this type of system is that the air conditioning is central, and, due to the partitioning of many areas into both interior and exterior spaces and due to the air handlers serving different exterior exposures, a single/central air conditioning coil at constant volume airflow cannot, without the use of simultaneous heating and cooling (which is not allowed for constant volume systems under the current energy conservation code), provide for adequate temperature control throughout the year, and particularly during the cooling season, in many of the spaces served. This is evident with this building, where many of the rooms in the Finance/Tax Collection/Clerk areas have been provided with local supplemental multi-zone ductless split air conditioning systems, because the air conditioning provided by the central air handling system serving these spaces is not adequate.

NON-CENTRAL AIR HANDLING/CONDITIONING & VENTILATION

The gymnasium/stage is provided with a dedicated constant volume heating and ventilating unit. This unit was not accessible during the walk-thru, and therefore the condition was not reviewed.

Several spaces are provided with unit ventilators, including the three Hearing Rooms and the pre-school classrooms, and the unit ventilators in general appear to be in fair to good condition. These units provide heating and ventilation, and the units for the pre-school also provide air conditioning. However, unit ventilators are among the noisiest ventilating systems available, and therefore are often found objectionable by the occupants of spaces where excess background noise adversely affects the use and function of the space, such as classrooms and meeting spaces. In such spaces the occupants often react by turning the constant ventilation function (the fan) of the unit ventilators off, thereby preventing the constant introduction of outside air ventilation - one of the main functions of the units. Per a conversation with the director of the school, that is the case at the school; the fans in the unit ventilators are manually turned off unless heating or air conditioning is necessary.

The three Hearing Rooms are served by two unit ventilators in Hearing Room 1. The two moveable partitions which create Hearing Rooms 2 and 3 effectively block the ventilation provided by these units to these two rooms.

The aforementioned local supplemental multi-zone ductless split air conditioning systems serving the Finance/Tax Collection/Clerk areas are provided with local controls by the manufacturer, and they appear to be in good condition.

Several constant volume exhaust systems are provided for spaces that require constant exhaust, such as restrooms and spaces served by unit ventilators.

CONTROLS

The automatic temperature control system is a pneumatic temperature control system, a system which uses air pressure to control the HVAC systems and equipment. The air compressor, dryer, and the central control components in the boiler room appear to be in good condition, and the other exposed components of the system range in condition from good to fair.

The operability of the controls is beyond the scope of this study.

RECOMMENDATIONS

Though state of the art when it was installed in this building, pneumatic temperature control systems do not compare with modern digital control systems with respect to many aspects, including occupancy flexibility (independent occupied/unoccupied cycle control for multiple spaces), local occupied override control (allows for the use of some spaces on a non-programmed basis), maintainability, energy management (minimizing energy consumption), and troubleshooting (including pro-active troubleshooting), just to mention a few differences. Therefore replacing the existing pneumatic temperature control system with a direct digital control (DDC) system is the foremost recommendation with respect to the HVAC portion of this study. Ideally the replacement of the pneumatic temperature control with a digital control system would be concurrent with some of the recommendations below.

There is nothing simple that can be done to the three central air handling systems to improve temperature control. Replacing the temperature controls throughout the building, as recommended above, will help the temperature control issues, but should not be considered a panacea with respect to temperature control issues; replacing the controls for systems such as these air handling systems, i.e. systems with less than ideal temperature control zoning, will not solve the temperature control issues for those zones.

One of the lower first cost methods of improving comfort for the areas served by the three central air handling systems is to replace/reconfigure temperature control zones that are served by a single reheat coil but consist of both interior and exterior spaces, such that the interior and exterior areas of those zones have dedicated reheat coils. If one of the higher first cost recommendations (see the two following paragraphs) is not implemented, this replacement/reconfiguration is recommended.

Improving the comfort of these three systems beyond retrofitting a few reheat coils, as suggested in the previous paragraph, would likely involve retrofitting variable air volume (VAV) terminal units and controls, and such a retrofit would likely require at minimum replacement of the refrigerant air conditioning components of the three central systems with chilled water coils and a central chilled water plant, a relatively high first cost recommendation. Such a retrofit would also substantially reduce energy consumption.

A second option to improving the comfort of these three systems would be converting the three central air handling systems to dedicated outside air systems, and providing one of several possible options for local air conditioning. Some of those options would include variable refrigerant volume (VRV) systems, chilled water based fan coil or chilled beam systems, and conventional or ground source air to water heat pump systems. Similar to the system described in the previous paragraph, implementing this type of system would also be at a relatively high first cost and would substantially reduce energy consumption.

The unit ventilators in the pre-school classrooms should be replaced with quieter (non-unit ventilator) systems, such that constant outside air ventilation can be provided without objectionable noise.

Hearing Rooms 2 & 3 should be provided with at minimum constant ventilation independent of the unit ventilators in Hearing Room 1. Ideally they also would be provided with separate terminal heating units.

Regarding the heating plant, the three lead/lag pumps sets and accessories should be replaced, and they should be replaced with a single lead/lag pump set with variable frequency drives (VFD). All three of the HWS/HWR loops would be served by this common lead/lag pump set. Replacement in this manner will result in higher efficiency pumps, reduced pump maintenance costs, and the VFDs will provide for further energy savings by reducing the average flow rates.

A further improvement to the heating plant would be the addition of a primary/secondary pumping system, which would provide for resetting the hot water supply water temperature inversely proportional to the outside air temperature, thereby reducing operating costs and improving comfort.

ELECTRICAL

EXISTING SYSTEMS

The building is served by a single electrical service with main switchboard rated 2000amperes, 208Y/120 volts, 3-phase, 4-wire and is located in the first floor main electrical room. The switchboard consists of utility metering compartment, 2000amp

main circuit breaker and two distribution sections. The main distribution equipment is older and in fair condition.

There are a number of electrical panels located throughout the Town Hall area of the building. These panelboards are manufactured by Arrow Hart and are in poor to fair condition. The majority of the panelboards located in the Town Hall area of the building do not have any spare circuit breakers available.

There are (2) panelboards located in the School area of the facility. These panelboards are manufactured by Square D and are in good condition. The panelboards in this area of the facility do not have any spare circuit breakers available.

The lighting throughout the town hall and school consists primarily of surface mounted and recessed linear fluorescent lighting fixtures. The fixtures in the town hall area appear to be in fair condition. The lighting throughout the town hall area is controlled by light switches. The light levels throughout the town hall area appear to be within the recommended levels.

The light fixtures in the school area are newer and in good condition. The lighting throughout the school area is controlled by light switches. The light levels throughout the school area appear to be within the recommended levels.

The fire alarm system is a Simplex 4020 addressable voice system coupled with an older Simplex zoned fire alarm system which serves the majority of the Town Hall area of the building. There are manual fire alarm pull stations, horn/strobes and smoke detectors located through the Town Hall area of the building. These devices are older and in poor condition. It appears the devices in the Town Hall area of the building do not meet the requirements of today's codes. The majority of devices in the Town Hall area of the building are not mounted at ADA compliant heights.

The fire alarm devices in the School area of the building are newer and in good condition. These devices consist of addressable manual fire alarm pull stations, speaker/strobes and smoke detectors. These devices appear to meet the requirements of today's codes and are mounted at ADA compliant heights.

Exterior building mounted lighting is accomplished via metal halide area lights and decorative compact fluorescent globe fixtures. The building mounted globe fixtures have self-ballasted compact fluorescent lamps installed. The lighting appears to be in fair condition. It appears that there are enough exterior building mounted fixtures to meet acceptable light levels at building exits.

Site lighting is accomplished via decorative compact fluorescent globe fixtures at walkways and metal halide area lights in parking areas. The decorative globe fixtures have self-ballasted compact fluorescent lamps installed. It appears that there are sufficient site lighting fixtures to meet acceptable light levels.

There is currently an emergency standby generator on site. This unit is older and is no longer used. The generator and ATS have been disconnected and no longer provide backup power to any area of the building.

Life safety emergency lighting is provided by battery powered emergency lighting units throughout the town hall and school areas of the building. The emergency lighting units are normally-off dedicated emergency battery units separate from the building general lighting. The emergency lighting in the Town Hall area of the building does not appear to be adequate to meet current codes.

Exit signage is installed throughout the Town Hall and School areas of the building. The exit signs are being powered from the building electrical service with battery backup. The exit signage in the Town Hall area of the building does not comply with today's code requirements. The exit signage in the School area of the building appears to comply with today's code requirements.

There is currently a minimal security system serving a portion of the Town Hall area of the building including only magnetic contacts at select doors. This system appears to be newer and in good condition. This system does not appear to be adequate to meet the building's security needs. It was noted during the field survey that a project to upgrade the security at this building is currently underway.

The IT equipment serving the facility consists of a newer server and network switches located in the Town Hall main electrical room and School storage closet. This equipment is in good condition. There are a number of wireless access points throughout the facility which appear to provide adequate coverage to meet the facility's needs.

RECOMMENDATIONS

Upgrade existing building main electrical service equipment and power distribution equipment throughout Town Hall area of building.

Upgrade existing interior lighting throughout the Town Hall area of the building to new more energy efficient lighting. Incorporate new automatic lighting controls throughout the facility to comply with latest energy code and increase energy efficiency.

Upgrade existing exterior lighting to new more energy efficient LED lighting which will also perform better in colder temperatures.

Replace existing fire alarm devices in Town Hall area of the building with new addressable fire alarm devices to meet the latest codes.

Upgrade existing emergency standby generator and connect to existing automatic transfer switch to serve select building circuits such as heating equipment which may be needed during a power outage.

Upgrade existing emergency lighting in Town Hall area of the building. Replace older emergency lighting units and provide additional emergency lighting to comply with today's codes.

Replace existing exit signs in the Town Hall area of the building and provide additional exit signs to meet the latest codes.

Provide a dedicated space for IT equipment and UPS with recommended cooling to support equipment functionality.

PLUMBING

EXISTING SYSTEMS

A single natural gas fired atmospheric tank type water heater located in the boiler room provides hot water for most of the facility. It appears to be in good condition. The water heating plant is provided with a mixing/tempering valve and two recirculation pumps.

The pre-school is provided with an electric tank type water heater located in a closet off of one of the classrooms, and it appears to be in good condition. It is provided with a recirculation pump.

The lavatories throughout the facility are wall mount vitreous china of various types, and they range in condition from good to fair. Most of the lavatories are not accessible.

The water closets throughout the facility are floor mount flush valve operated vitreous china of various types, and they range in condition from good to fair. Most of the water closets are not accessible, and it does not appear that any of the water closets are low flow.

The urinals throughout the facility are wall mount flush valve operated vitreous china of various types, and they generally are in good condition. It does not appear that any of the urinals are low flow.

The drinking fountains in the facility are wall mount stainless steel of various types, and they range in condition from good to fair.

The janitor's sinks are either the enameled cast iron wall mount floor supported type or the floor mounted molded stone mop basin type, and they range in condition from fair to poor.

RECOMMENDATIONS

Replace the water closets with low flow water closets. Provide accessible water closets where required.

Replace the urinals with low flow urinals.

FIRE PROTECTION

EXISTING SYSTEMS

The entire building is protected by a wet sprinkler system. In general, the sprinkler heads, piping, and other components of the sprinkler system range in condition from good to fair.

The sprinkler entrance in the mechanical room includes a backflow preventer which appears to be in good condition, but it is supported by cinder blocks.

RECOMMENDATIONS

Proper support of the backflow preventer in the boiler room should be provided.

BUILDING USE AUDIT
Town of Wayland, Massachusetts

Fire Station #2

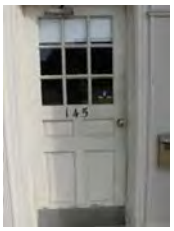
145 Main Street

Year Constructed:	1954	
Construction Type:	III B	
Fire Sprinklers:	No	
Building Area per Floor:	First Floor:	5792 SF
	Total Area:	5792 SF

Documents Used in Study:
- No Floor Plans Available
- Aerial Photograph

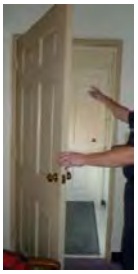
General:

The building is not handicapped accessible:



3 Entrance and interior doors are not equipped with lever hardware. Replace hardware. Adjust closers for opening force.

3 Rear vestibule is too small. There should be at least seven feet between doors in sequence. Remove doors.



3 Restrooms and showers are not accessible. Reconstruct.

3 Space between kitchen countertops is closer than 60 inches. Kitchen space to be re-organized to provide required clearances.

3 Shallow sink with knee space under is required. Modify cabinets.

Building Improvements

2 Repair vertical crack in boiler's chimney.

3 Re-point limited areas of brickwork.

3 Sections of wood trim and the cupola need scraping, sanding and painting.

4 Replace aprons at overhead doors at front and rear of building with concrete aprons with frost walls. Aprons to extend at least 8 feet from building.

3 Septic system is original to building and should be inspected to determine if replacement is necessary. (System has greater use due to pottery studio).

☐ There is currently an underground oil tank that should be inspected.

Mechanical

3 Replace the existing exhaust ventilation system serving the restroom off of the Day Room with an exhaust system which terminates either thru the outside wall or thru the roof. This system should also be designed to exhaust air from the adjacent kitchen and custodial closet.

2 It should be verified that the two kilns which share the movable exhaust hood never operate simultaneously. If they do operate simultaneously, an additional exhaust hood system is recommended, such that each kiln has a dedicated exhaust system.

3 All four of the existing thermostats should at minimum be replaced with stand-alone programmable digital thermostats. As an upgrade, communicating programmable digital thermostats, either wired or wireless, could be provided. The communicating thermostat systems could be configured for central programming of all of the thermostats either on or off site.

4 Upgrading the heating plant to a condensing type gas fired boiler should be considered for reducing energy consumption.

4 Add air conditioning system to building.

Electrical

4 Upgrade the lighting in the fire engine bay to newer more energy efficient fixtures. Include additional lighting to meet recommended lighting levels. Add three way switches to control lighting from each entrance to the fire engine bay. Install occupancy sensors for automatic lighting control to meet today's energy code.

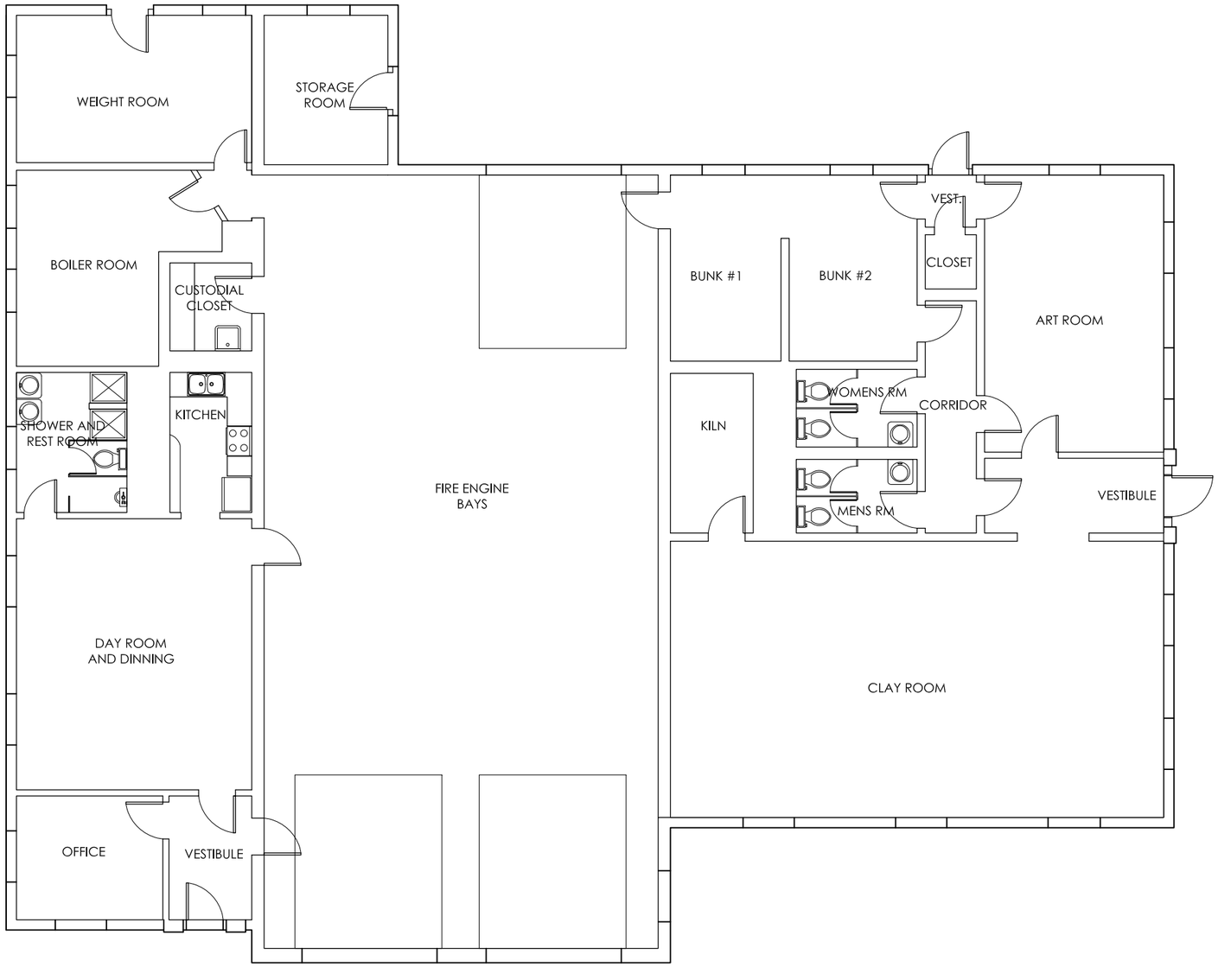
4 Install occupancy sensors for automatic lighting control throughout facility to meet the requirements of today's energy codes.

4 Upgrade existing exterior lighting to newer more energy efficient fixtures. Add additional exterior lighting where required to meet recommended lighting levels.

4 Provide a dedicated space for IT equipment and UPS with recommended cooling to support equipment functionality.

Plumbing

3 Upgrade some of the fixtures to ADA compliant. Upgrade all of the fixtures to low flow.



EXISTING PLAN

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

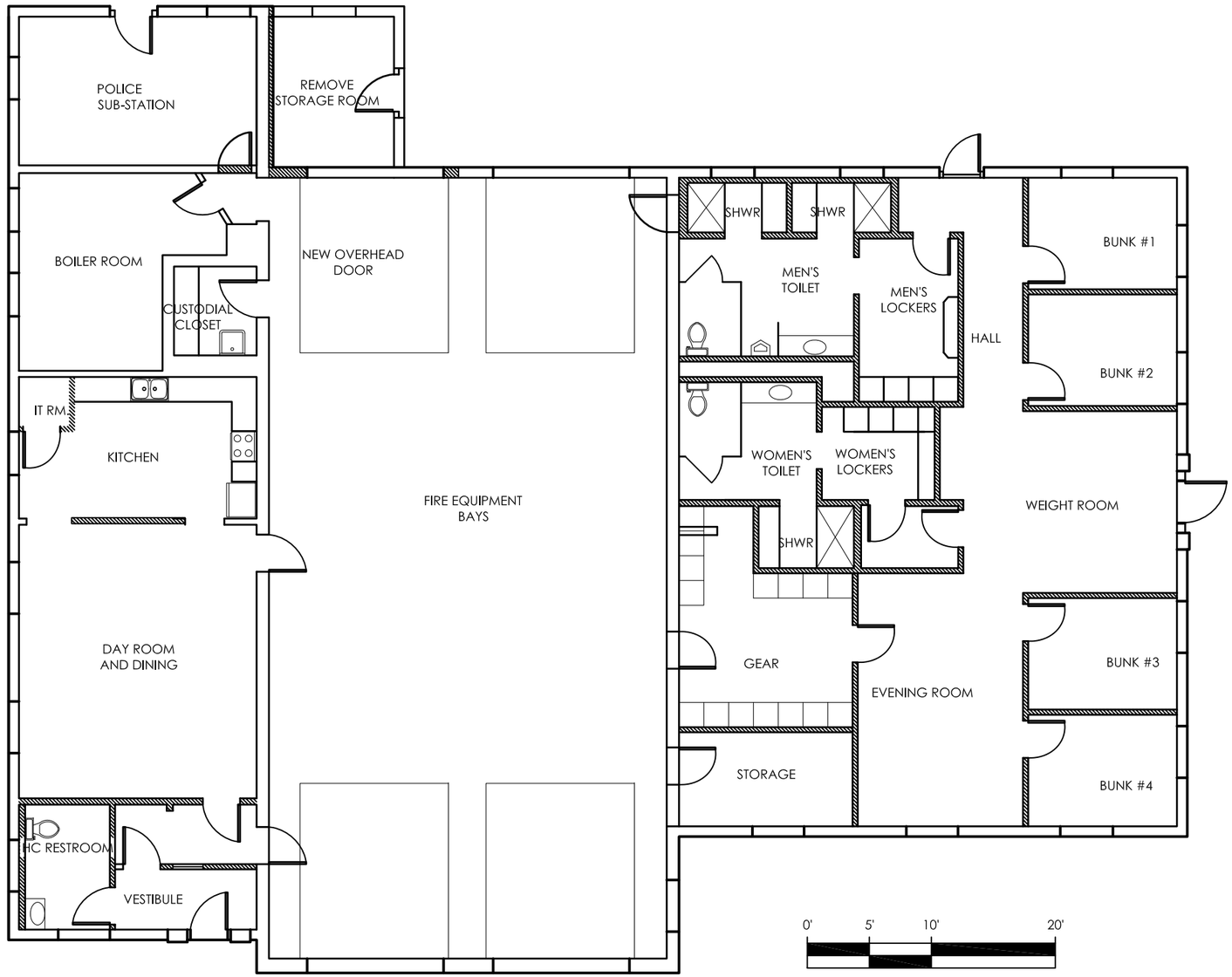
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

FIRE STATION #2
EXISTING PLAN

Scale: 3/32"=1'-0"
Drawn by: AJ
Job No. 13003.00
Date: 4/5/13

FSE-1



PROPOSED PLAN

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

FIRE STATION #2
PROPOSED PLAN

Scale: 3/32"=1'-0"
Drawn by: AJ
Job No. 13003.00
Date: 4/5/13

FSP-1

Fire Department Spaces	Existing Area	Proposed Area
Vestibule	68	55
Public Restroom		68
Lobby		54
Office	120	
Day Room	423	423
IT Room		16
Shower & Restroom (Men)		204
Men's Lockers		105
Shower & Restroom (Women)		145
Women's Lockers		68
Women's Vestibule		40
Hall		111
Kitchen	76	199
Custodian	48	48
Boiler Room	213	213
Police Sub-Station		230
Weight Room	230	260
Storage Room	122	106
Equipment Bays	2037	2037
Bunks	304	432
Evening Room		271
Gear		206
Vestibule	105	
Closet	18	
Corridor	78	
Women's Room	62	
Men's Room	62	
Art Room	329	
Kiln	87	
Clay Room	903	
NET AREA	**5285**	**5291**

COMPREHENSIVE BUILDING/PROGRAM AUDIT
Town of Wayland, Massachusetts

Fire Station #2

Structural

Structural Description:

Fire Station #2 is a one-story (plus partial Attic), 3,500+/- square feet, wood and steel framed building, located at 145 Main Street in Wayland. Foundations are assumed to be conventional spread footings; Ground Floor construction appears to be a concrete slab on grade. The site is relatively level. There are two Apparatus Bays, located in the central, raised, hip-roof section. This section of the building is flanked on the north and south sides by wings with lower, flat roofs. Exterior walls appear to be load bearing masonry. The date of construction is unknown; no original construction drawings were available.

The Office, Day Room, Boiler Room, Weight Room and Toilet Rooms are located in the northern wing. There is a small Storage Room at the southeast corner of this section, located behind the northernmost Apparatus Bay. The flat roof construction of this wing could not be seen; however, it is likely wood and steel framed.

The Wayland Art Center occupies most of the south wing; there are also two Bunk Rooms. Again, the flat roof construction was obscured by finishes and could not be seen; however, it is likely wood and steel framed. Interior walls in this wing are typically concrete block (CMU) construction and may be load bearing in a number of locations.

Access to the Attic space over the Apparatus Bays was gained through a ceiling hatch. The Attic Floor is framed with wood joists (size unknown) spanning approximately 12 to 13 feet (east-west) to steel beams. The steel beams (four total) clear span the Apparatus Bays in the north-south direction and are supported on steel columns that are embedded into the north and south concrete block walls. Presently, the Attic is unused. Raised, hip roof construction (with a synthetic slate shingle roof) is wood framed. Rafters appear to be 2x12 @ 24” o.c.; the size of the hip and ridge beams could not be determined. A centrally located wood cupola was constructed on this roof, centered on the east-west ridge line.

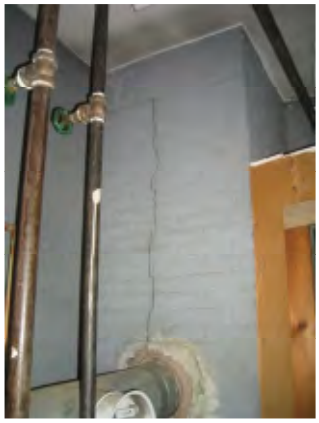
Structural Conditions/Issues – Comments and Recommendations:

Structural conditions at the Fire Station #2 were observed during a brief tour of the building on March 11, 2013. Generally speaking, floor and roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members (refer to additional comments below). Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements.

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

- Framing details at the lower/flat roofs of the north and south wings could not be determined. The capacity of this roof framing should be reviewed for drifting/sliding snow from the adjacent/higher hipped roof over the Apparatus Bays, in conjunction with future renovations to the facility.

- The condition of the interior walls masonry walls is generally satisfactory; however a vertical crack was observed a the masonry enclosure for the boiler flue (See photo at right). This crack does not present an immediate structural concern; however, it should be repaired in conjunction with future renovations to the facility.



- The condition of the exterior brick is generally satisfactory (including the chimney for the boiler flue). Repointing is required in some areas.

- Sections of wood trim and the cupola need scraping, sanding and painting; it does not appear that these elements have rotted.

- The condition of the concrete slab on grade generally appears to be satisfactory. There is an east-west crack which runs from the west exterior wall to the westernmost floor drain (two drains total) in the Apparatus Bay section; however this crack is not structurally significant.

Building Code Requirements and Additional Comments:

Massachusetts State Building Code Requirements – General Comments:

Proposed renovations, alterations, repairs and additions to the Fire Station #2 would be governed by the provisions of the Massachusetts State Building Code (MSBC – 780 CMR 8th Edition) and the Massachusetts Existing Building Code (MEBC). These documents are based on amended versions of the 2009 International Building Code (IBC) and the 2009 International Existing Building Code (IEBC), respectively.

The MEBC allows the Design Team to choose one of three (3) compliance methods. Structurally, the Prescriptive Compliance Method is preferred. Regardless of the compliance method chosen, the MEBC may require that the (presumably unreinforced) masonry walls of the building be evaluated with respect to the provisions of Appendix A1 of the IEBC (depending on the extent of the renovation/alteration work and/or proposed change(s) in use). In addition, Section 101.5.4.0 of the Massachusetts Amendments (Chapter 34) requires that the existing building be investigated in sufficient detail to ascertain the effects of the proposed work (or change in use) on the area under consideration, and the entire building or structure and its foundations, if impacted by the proposed work or change in use.

Additions – General Comments:

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

Renovations/Alterations – General Comments:

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

Proposed Alterations and Renovations - Anticipated Scope of Structural Work:

Fire Station # 2 will continue to be used as a Fire Station (no change in use).

- Masonry and envelope repairs as noted above.

- Review the flat roof structure of the north and south wings to determine if adequate capacity is available to support drifting/sliding snow from the higher, Apparatus Bay roof. Preliminary cost estimates should carry an allowance for the local reinforcing of these roofs.

- Demolish and remove the existing, one-story Storage Room at the southeast corner of the north wing to accommodate a new overhead door on the back (east) side of the building for the northernmost Apparatus Bay. New brick veneer (anchored to the existing masonry wall) will be required. The new veneer will be supported on an 8" thick, supplemental concrete foundation wall anchored to the existing wall (alternately, a galvanized, bolted angle could be provided). The south wall of the Police Sub Station (current Weight Room) will need to be reinforced to function as an exterior wall. A tubular steel "H" frame, bolted to the existing masonry wall, will be required at the new overhead door opening.

- The Art Center will vacate the building and the south wing will be renovated to provide additional bunk space for the station. The new layout will require removal/alteration of certain, existing interior masonry walls, which may be load bearing. Preliminary cost estimates should carry an allowance for new roof beams, columns and footings, as may be required to accommodate the new plan.

End of Structural Report

TOWN BUILDING ASSESSMENT STUDY AND CAPITAL MASTER PLAN
Town of Wayland, Massachusetts

Fire Station

145 Main Street

MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS

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

April 5, 2013

GENERAL

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

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

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

MECHANICAL

HEATING

The heating plant consists of a cast iron sectional boiler with an oil burner. The boiler and the burner appear to be in fair to good condition.

The oil tanks are buried below the pavement outside, adjacent to the boiler room. A review of the tanks and the tank installation is not included in this study.

Combustion air is provided via fixed louvers in the outside door.

The hydronic (hot water) circulation system consists of four in-line zone pumps, each serving a distinct temperature control zone in the building. Each of the heating zones is provided with a three way diverting valve in the boiler room which allows for maintaining a constant high boiler water temperature and lower supply water temperatures. The pumps, control valves, and piping systems appear to be in good condition.

The four temperature control zones are as follows:

- Fire engine bays
- Vestibule/Office/Day Room/Weight Room
- Bunk Rooms & Meeting Room
- Clay Room

The piping system for each zone is known as a one pipe system, with diverting (monoflow) tee fittings at the connections of the terminal heating unit inlet and outlet branch pipes to the main pipe.

The terminal heating units consist of several different types of baseboard and wall mounted fin tube convectors. The convectors in general appear to be in fair condition.

A fifth zone pump is dedicated to the potable water heater. A simple zone controller is configured to allow for this zone to be the priority over the four heating zones.

There is a natural gas entrance at the rear of the building, but it is not serving any appliances in the building.

AIR CONDITIONING

The building has no permanently installed air conditioning systems.

VENTILATION

The building has no outside air ventilation systems.

The restrooms at the Meeting/Clay Room areas are provided with exhaust fans which exhaust through the roof.

The restroom off the Day Room is provided with a thru-the-wall exhaust fan which exhausts into the boiler room. Code requires that restroom exhaust systems shall be exhausted outside the building, therefore this installation is not in accordance to Code.

The three kilns off the Clay Room are served by two exhaust systems, one system that is directly connected to one of the kilns, and one moveable hood that is shared by two of the kilns. It would be expected that, for installations with multiple kilns, all of the kilns would be expected to operate at some point simultaneously, therefore such an installation would be expected to have a dedicated exhaust for each kiln.

The fire engine bays are provided with a local tailpipe connected exhaust system with three drops, so it can serve up to three idling vehicles. This system appears to be in good condition.

The two bunk rooms are provided with manually controlled ceiling fans.

CONTROLS

The Clay Room has a non-programmable digital thermostat, whereas the three other temperature control zones are provided with non-programmable analog (Honeywell round) heating thermostats.

RECOMMENDATIONS

The existing exhaust ventilation system serving the restroom off of the Day Room should be replaced with an exhaust system which terminates either thru the outside wall or thru the roof. This system should also be designed to exhaust air from the adjacent kitchen and custodial closet.

It should be verified that the two kilns which share the movable exhaust hood never operate simultaneously. If they do operate simultaneously, an additional exhaust hood system is recommended, such that each kiln has a dedicated exhaust system.

All four of the existing thermostats should at minimum be replaced with stand-alone programmable digital thermostats. As an upgrade, communicating programmable digital thermostats, either wired or wireless, could be provided. The communicating thermostat systems could be configured for central programming of all of the thermostats either on or off site.

Upgrading the heating plant to a condensing type gas fired boiler should be considered for reducing energy consumption.

ELECTRICAL

EXISTING SYSTEMS

The building is served by a single electrical service rated 200amperes, 240/120 volts, 1-phase, 3-wire and is located in the boiler room. The service equipment consists of utility metering equipment, 200amp main fused disconnect switch and (2) distribution panelboards located in the boiler room. The predominance of the main distribution equipment is older but in good condition. There are a number of spare circuit breakers available in the distribution panelboards.

There is (1) additional electrical panel located in the arts area of the Facility. This panelboard is manufactured by Frank Adam. The panelboard is older but in fair condition. There are no spare circuit breakers available in this panelboard.

The lighting throughout the facility consists primarily of recessed and surface mounted linear fluorescent lighting fixtures. The fixtures appear to be in good condition. The lighting in all spaces is controlled by light switches. The light levels in the majority of the facility appear to be within the recommended levels. The lighting level in the fire engine bay appears to be lower than the recommended level.

The fire alarm system is a Fire Lite MS-4 zoned system. There are manual fire alarm pull stations, horn/strobes and heat/smoke detectors located through the facility. The fire alarm system and devices are approximately 5 years old and in good condition.

Exterior lighting is accomplished via building mounted incandescent lighting fixtures. The exterior lighting appears to be in poor condition and does not appear to meet recommended lighting levels.

There is currently a natural gas fired Winco 25kw emergency standby generator. This unit appears to be in good condition. The generator provides power to the majority of the building including all devices and equipment necessary for the operation of the fire station.

Life safety emergency lighting is provided by fixtures in the path of egress and in the bunk rooms and is fed from the emergency standby generator.

Exit signage consists of powered exit signs with battery backup in some areas of the building and painted exit signs in other areas. The exit signage does not comply with today's code requirements.

The IT equipment serving the facility consists of a newer server and network switches with UPS backup located in an exercise room. This equipment is in good condition.

RECOMMENDATIONS

Upgrade the lighting in the fire engine bay to newer more energy efficient fixtures. Include additional lighting to meet recommended lighting levels. Add three way switches to control lighting from each entrance to the fire engine bay. Install occupancy sensors for automatic lighting control to meet today's energy code.

Install occupancy sensors for automatic lighting control throughout facility to meet the requirements of today's energy codes.

Upgrade existing exterior lighting to newer more energy efficient fixtures. Add additional exterior lighting where required to meet recommended lighting levels.

Provide a dedicated space for IT equipment and UPS with recommended cooling to support equipment functionality.

PLUMBING

EXISTING SYSTEMS

The hot water system consists of an indirect fired tank type water heater. The source of heat for the water heater is the boiler. It appears to be in fair to good condition.

The water closets are floor mount tank type, and they appear to be in fair condition. They are not ADA compliant and are not low flow.

The lavatories are wall mount vitreous china, and they appear to be in fair condition. They are not ADA compliant and are not low flow.

The lavatories are wall mount vitreous china, and they appear to be in fair condition. They are not ADA compliant and are not low flow.

The two showers and the surrounds appear to be in fair to good condition.

The two janitor sinks are enameled cast iron, and they appear to be in fair condition.

The sink in the kitchen is stainless steel, and it appears to be in fair condition.

There are two floor drains in the apparatus bay, however there does not appear to be an oil separator for these two drains.

RECOMMENDATIONS

Upgrade some of the fixtures to ADA compliant. Upgrade all of the fixtures to low flow.

FIRE PROTECTION

There is no existing fire protection sprinkler system.

BUILDING USE AUDIT - CONDITION ASSESSMENT
Town of Wayland, Massachusetts

Wayland Public Library

5 Concord Road

Year Constructed: 1900
Construction Type: III B
Fire Sprinklers: No
Building Area per Floor:

Basement:	6338 SF
First Floor:	6227 SF
Mezzanine:	1460 SF
Total Area:	14,025 SF

Documents Used in Study:

- Construction Documents for Addition and Alterations dated December 1985 by A.Anthony Tappe and Associates
- The Library Building Program dated January 22, 2004
- Plan sketches of programmed spaces date June 23, 2004 by Lerner Ladds + Bartels, Inc.
- Lerner Ladds + Bartels, Inc. Feasibility Study and Architectural Planning dated April, 2005
- Tappe Assoc. Inc., Library Program Review and Recommendations dated November 2010 (Preliminary Draft).
- GMI Architects, Draft of Revised Program Requirements (undated).
- Kang Associates, Inc. Study dated June 26, 2012

Aerial Photograph

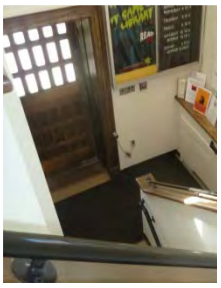
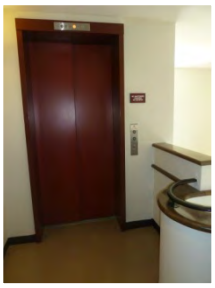
General:

The building was flooded in 2010. When water levels rose in the wetland area behind the library water began to penetrate the foundation walls, particularly at the corners of the building and at the elevator shaft. As rain continued along with melting, the water rose and began to overwhelm the drainage system. Town has pumps and a generator that can be utilized in such emergencies in the future. However, this approach has not been put to the test and a similar occurrence could still result in water damage. De-humidification is required in the basement but still book materials are suffering. We are concerned that any future use of the basement could be subjected to flooding.

The building is not handicapped accessible:


3 Entrance door is located in a thick wall and equipped with a closer. There is insufficient clearance at the side of the door. On the exterior of the entrance door a book return bin is blocking the required side clearance on the door. Add a push button operator to the door.

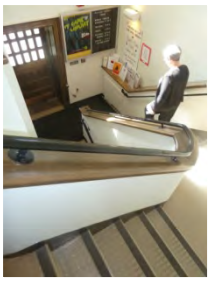

3 Original entrance doors has steps both on the exterior and interior. Exterior risers are not equal heights. Similarly the walk up to these steps is a ramp and is not equipped with railings. Code requires that all public entrances be handicapped accessible. This requirement may have been waived due to the historic nature of the building. It is recommended that the number of steps be increased and the sidewalk reduced in slope to less than 1 in 20.

_ Maneuvering space inside the entrance door is very tight. The cost to correct this is prohibitive.

_ A corner post elevator is provided in the stair enclosure for access to the three levels. Elevators are not typically permitted within a stair enclosure, but this may have been waived due to the historic nature of the building.

3 Floor designations to be added to jambs of elevator doors.



2 Main stair does not have an acceptable handrail at the guardrail side of the stair. A continuous handrail needs to be added above the actual stair.

2 Main stair handrail at wall is not aligned and is separated. Handrail to be replaced with a round pipe railing.

3 Toilet room is equipped with only one grab bar (2 required). Add a 36" long grab bar behind toilet. Also toilet tissue needs to be relocated so that centerline is between 7 and 9 inches in front of toilet bowl.

3 Circulation desk is not ADA compliant. Low counter section and knee spaces need to be added.

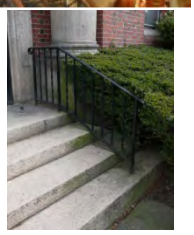

3 Signage within building is not ADA compliant.

3 Furniture in some office spaces does not provide maneuvering clearance for wheelchairs. Reorganize furniture.

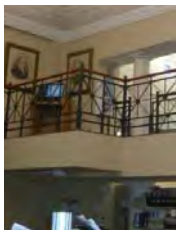
3 Columns are present in the aisles of the stacks. Stacks need to be re-positioned to remove the columns from the aisles.

_ Stair to mezzanine does not have handrail extensions. Nosings also project on this stair. Due to the historic status of the building we believe that this item need not comply.

_ Should the bookcases around the mezzanine stair be moved a guardrail will need to be added under the stair, to enclose any areas where headroom is under 80 inches high.



3 Handrails at original entrance do not have extensions. Add extensions to comply with MAAB.



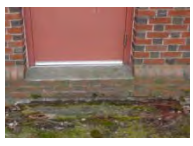
2 Main stair is not enclosed at lower level. As an egress stair it requires a 1 hr fire rated enclosure.

_ Guardrails for Mezzanine do not comply with code. We believe that this item is grandfathered so no changes required.

2 A short door is provided as an emergency exit out of the basement hallway. There are also steps leading up to it. Doors should be a minimum of 6'-8" high and where steps are involved there should be an area of refuge. This is also required for the main stair on both levels. Dead end corridors are also not permitted. It is recommended that the existing corridor be extended towards the current Children's Room where it can be connected to the exit door.

3 Water from downspouts be piped away from the building, to minimize the potential for water infiltration at the Ground Floor level and to reduce hydrostatic pressure on the foundation walls.

4 The exterior of the building is covered in places with ivy. Although attractive, overtime the plants can cause deterioration of the mortar joints and trap moisture against the building. Fortunately the mortar appears to be sound, where it is not covered, and therefore less likely to be damaged. As it is probably a lime-mortar under the areas of heavy growth it could be deteriorating. It is recommended that the ivy be removed.



2 The exit door from Adult stacks has one high step. Add a platform and ramp down to grade.

4 Granite columns and surround at original building entrance are stained. All exterior granite needs to be cleaned.

3 Wood window sills are deteriorating. Scrape, fill and re-paint.

Mechanical

3 Replace the boiler, pumps, air handlers, and condensing units within the next 5 to 10 years.

3 Replace controls with direct digital (DDC) controls and reconfigure the system such that the four AHUs can provide constant outside air ventilation during the occupied cycle.

4 Provide separate air conditioning control to the meeting room:

☐ A. If the ventilation provided by the existing AHU serving the meeting room can be set up to provide proper ventilation to the meeting room, supplemental air conditioning could be provided by new ductless split system serving the meeting room only.

☐ B. If the ventilation provided by the existing AHU serving the meeting room cannot be set up to provide proper ventilation to the meeting room, a new split DX air conditioning system with independent outside air ventilation capability should be provided.

4 Reconfigure the central pumping plant for primary/secondary pumping, such that the heating loop supply water temperature can be reset inversely with the outside air temperature, to reduce energy consumption and to improve controllability, while protecting the boiler/flue from condensing due to low entering water temperatures.

2 Provide safer and easier access to the air handling unit in the attic.

Electrical

4 Throughout the library provide new automatic lighting controls to comply with latest energy code and increase energy efficiency.

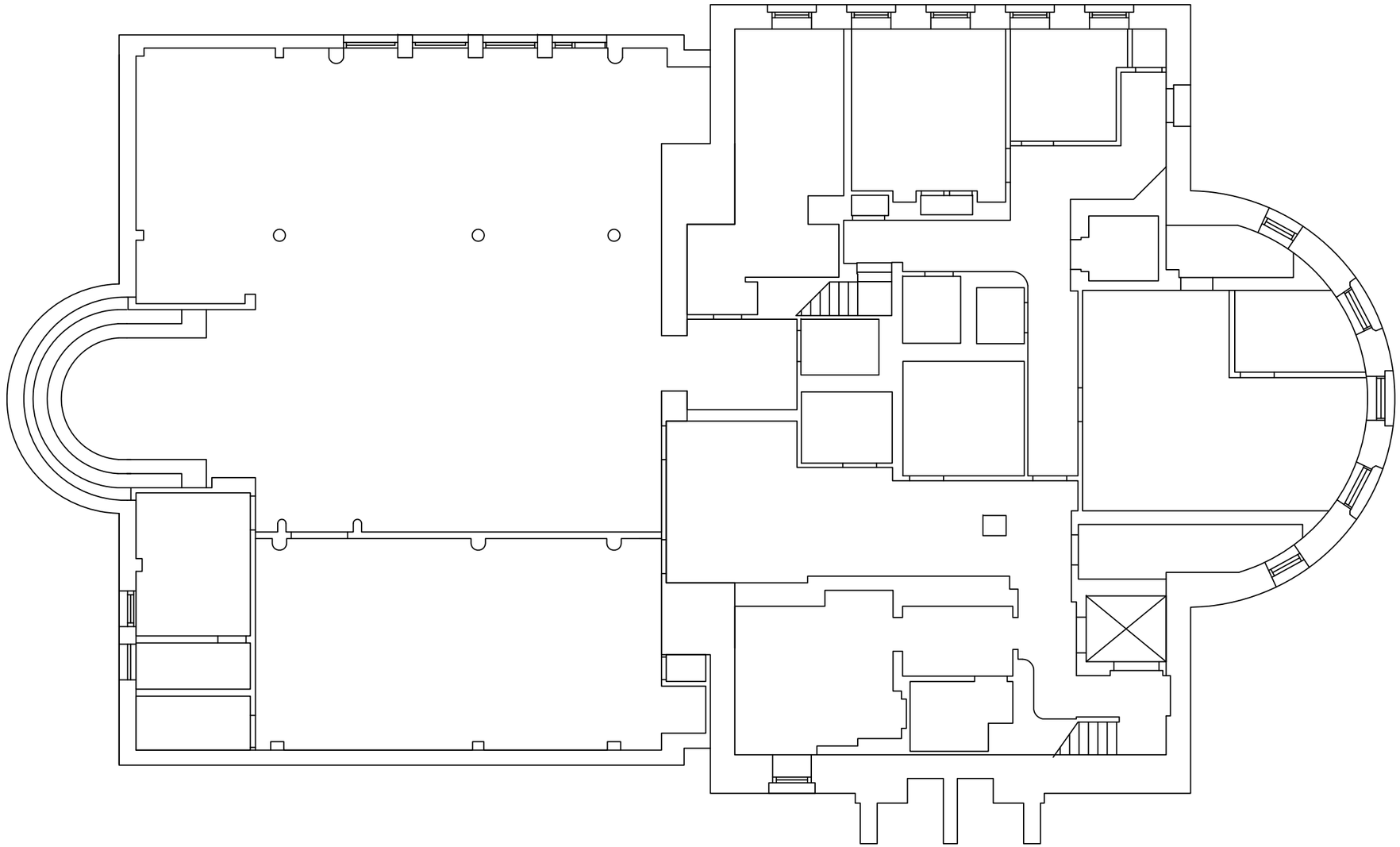
2 Upgrade existing fire alarm system to new addressable fire alarm system.

4 Upgrade existing building mounted exterior lighting to new, more energy efficient LED lighting fixtures.

2 Supplement existing emergency lighting to meet the code required emergency lighting levels.

2 Supplement existing exit sign layout to meet today's code requirements.

3 Light fixture lenses in story-telling are yellowed and should be replaced.



EXISTING GROUND FLOOR PLAN

GRAPHIC SCALE

0 5 10 20

(IN FEET)

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

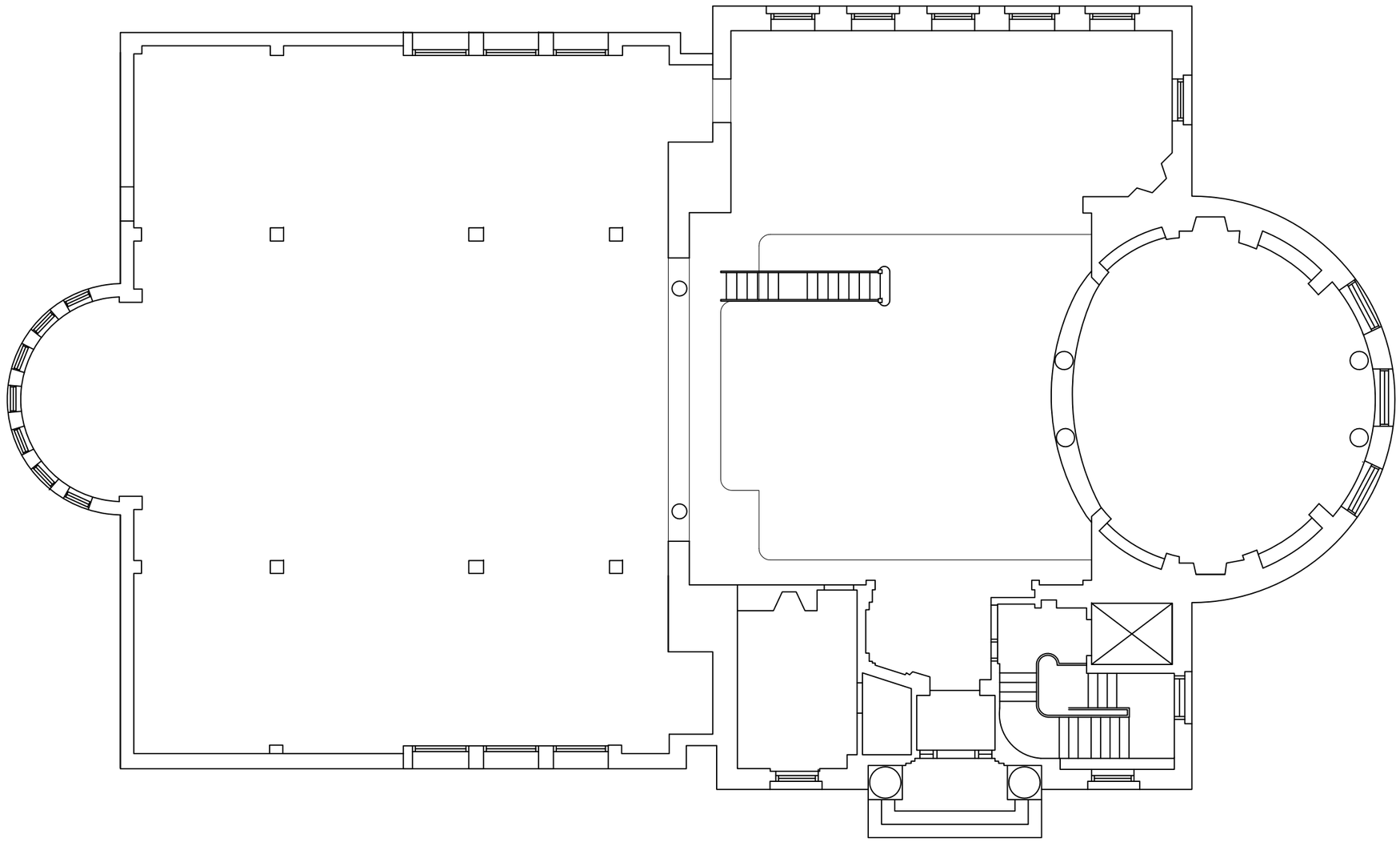
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

Scale: 3/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

EL-1



EXISTING FIRST FLOO R PLAN

GRAPHIC SCALE

0 5 10 20

(IN FEET)

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

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SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

Scale: 3/32"=1'-0"
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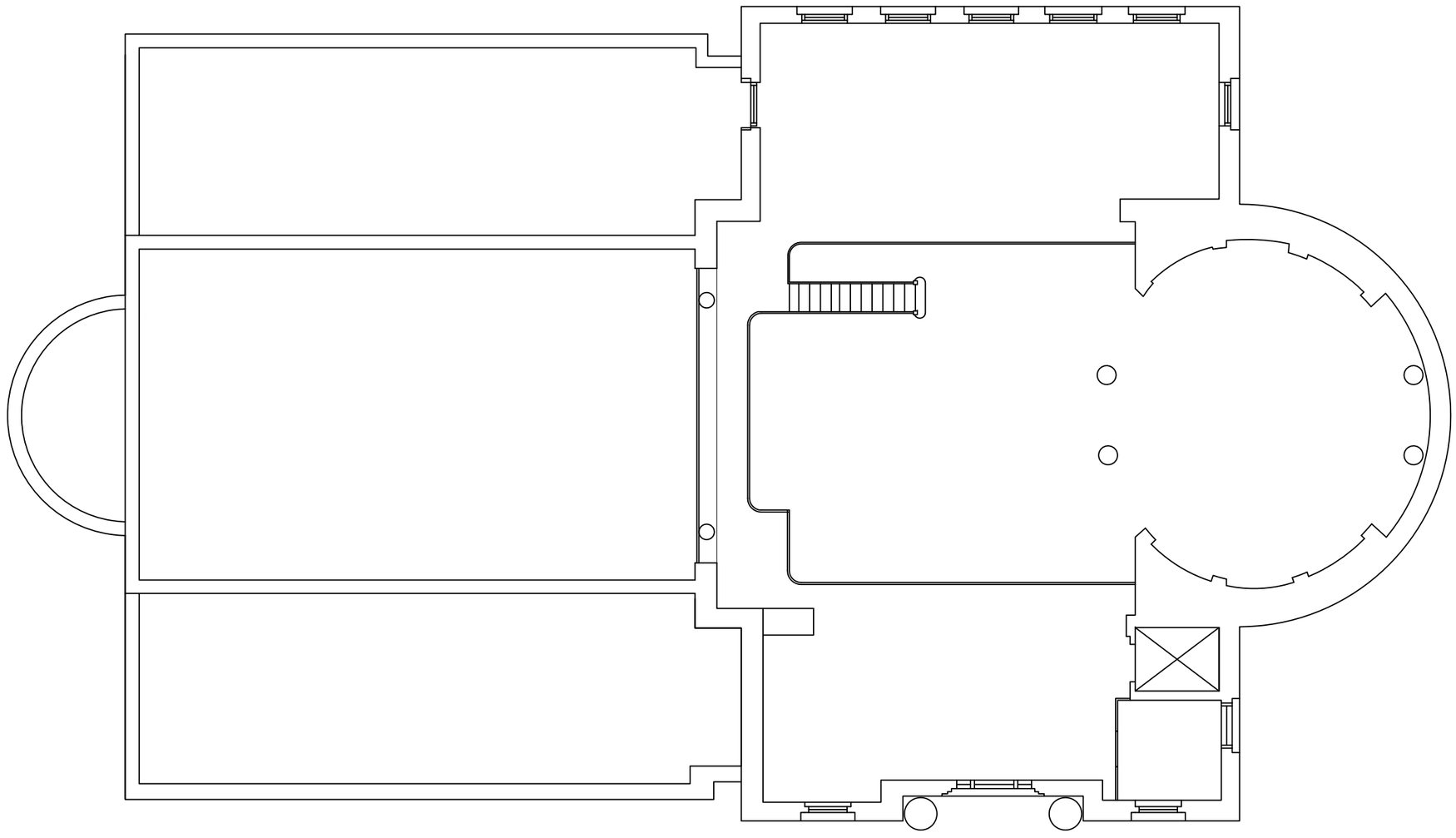


EXISTING MEZZANINE FLOOR PLAN

GRAPHIC SCALE

5 10 20

(IN FEET)

D·R·A

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

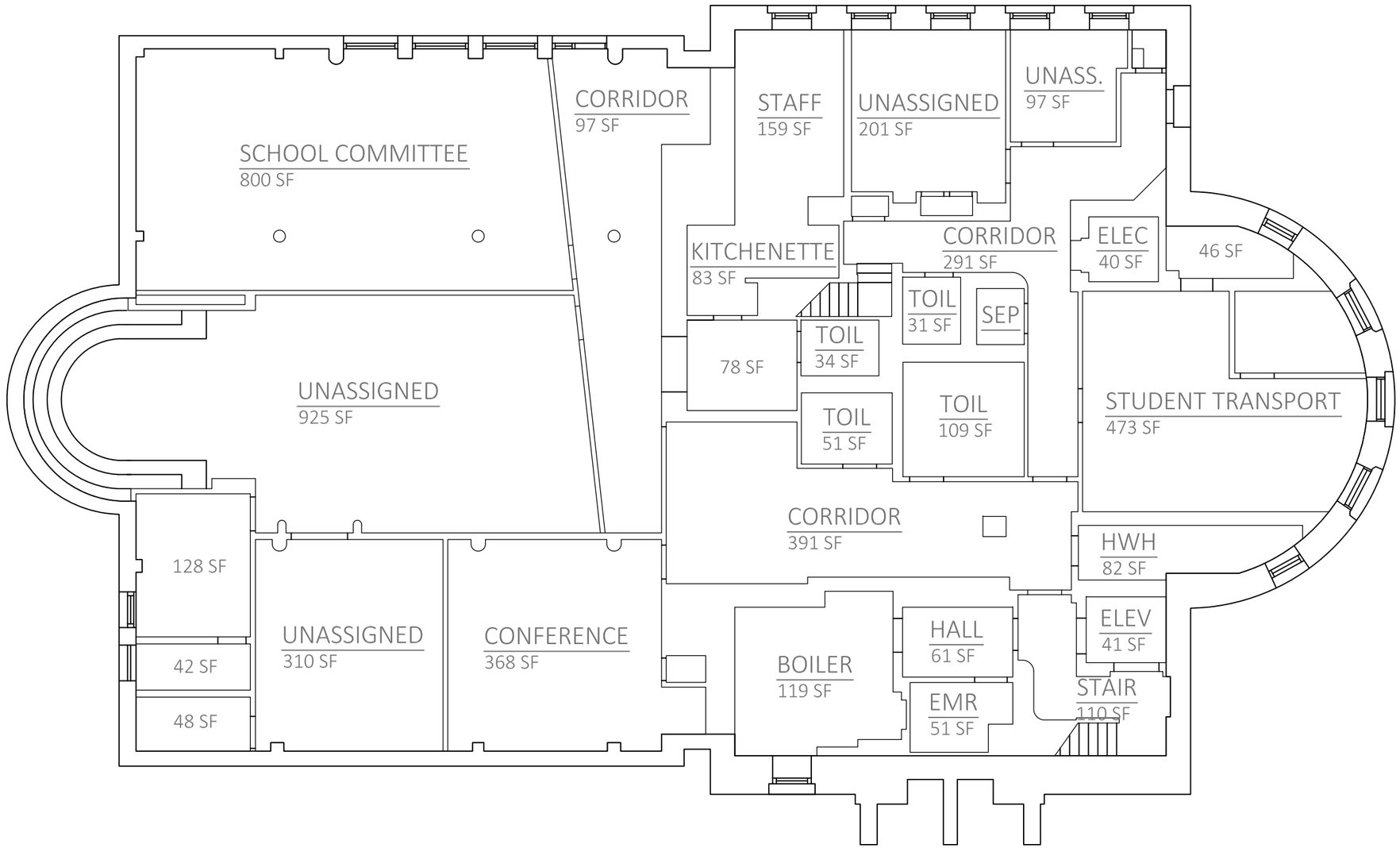
Planning	617-964-1700
Architecture	617-964-1701 fax
Interior Design	info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

Scale:	3/32"=1'-0"
Drawn by:	CGH
Job No.	13003.00
Date:	4/5/13

EL-3



GROUND FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

D·R·A
Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451
Planning 617-964-1700
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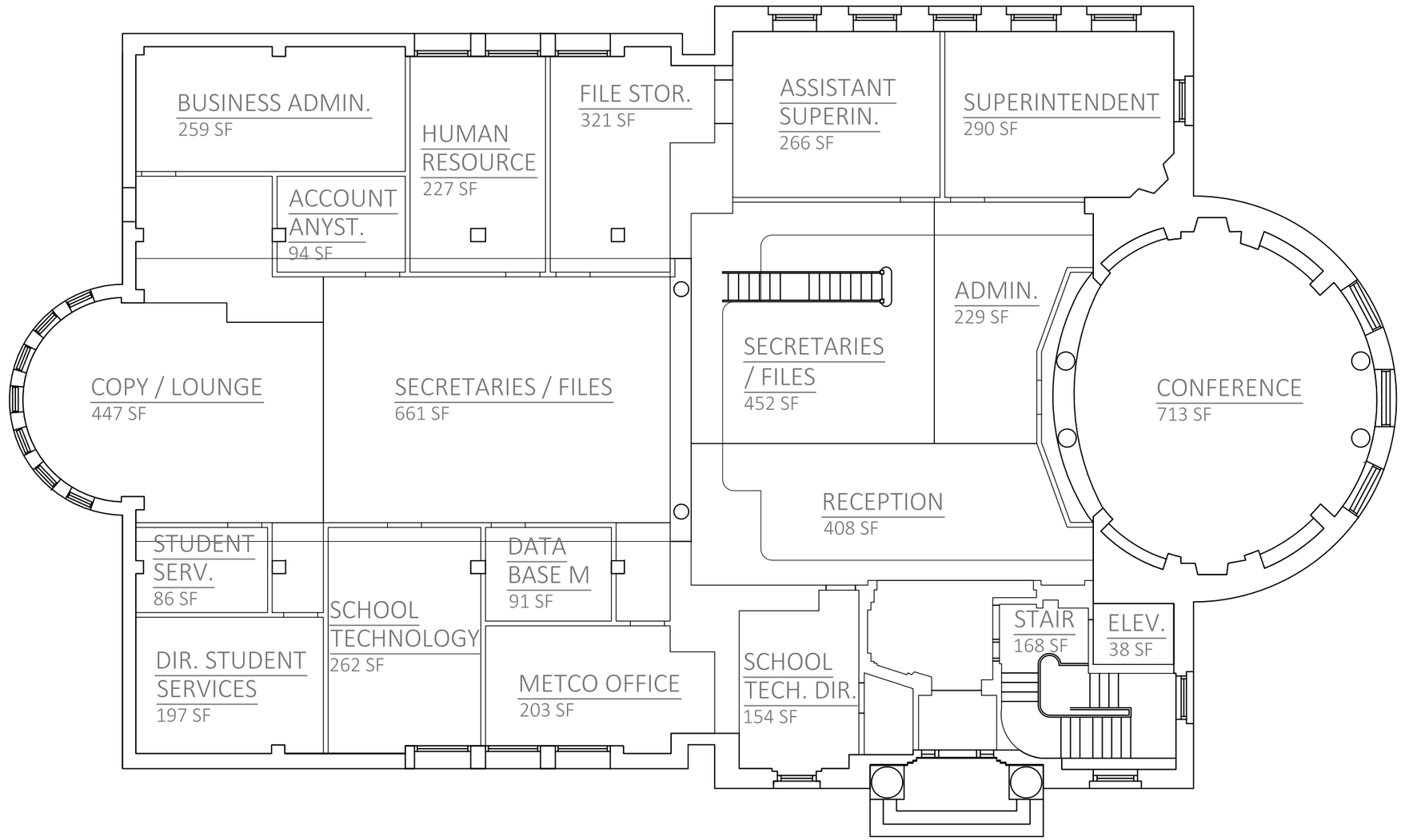
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

Scale: 3/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

SD-1



FIRST FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

D·R·A
Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451
Planning 617-964-1700
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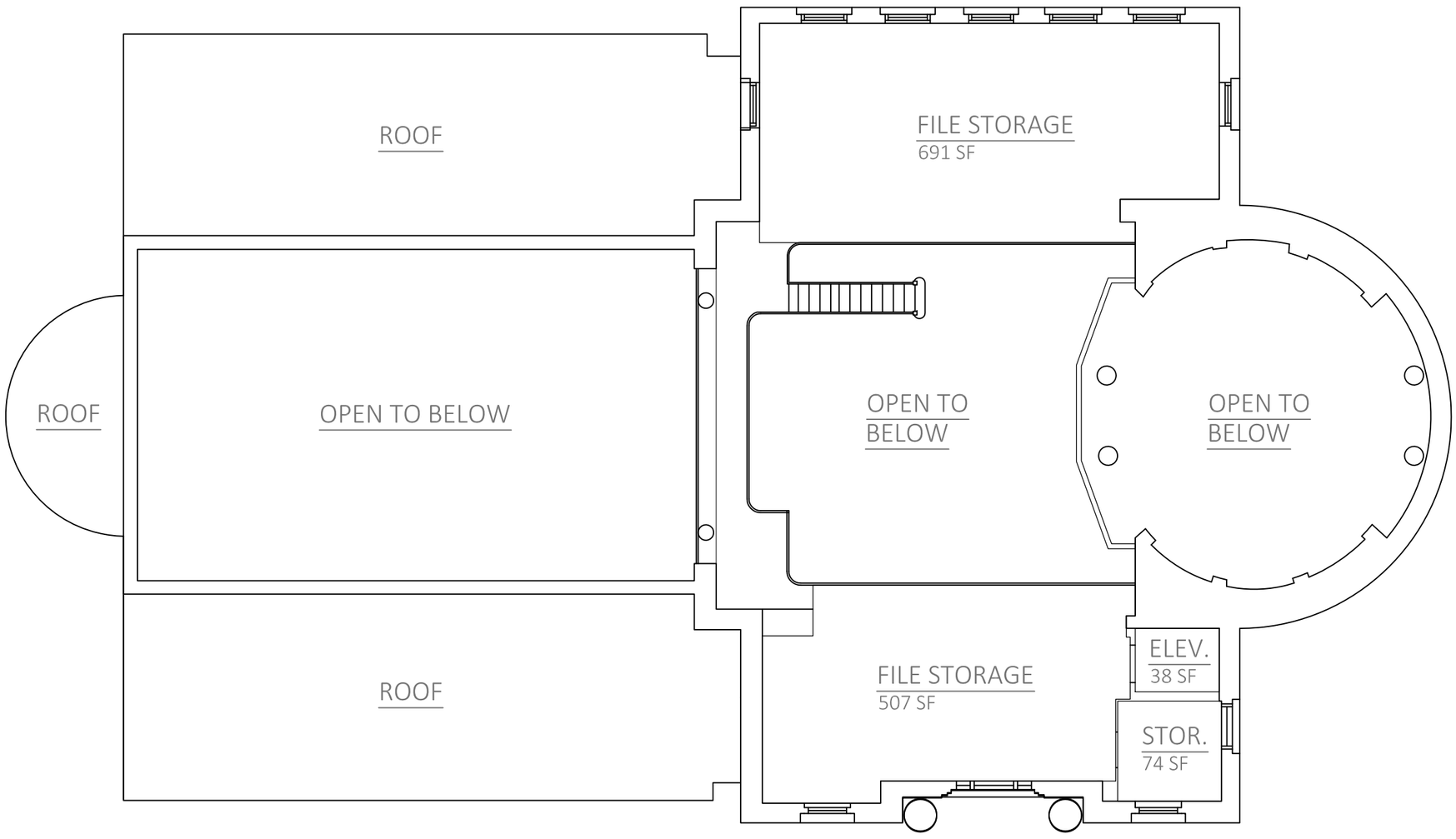
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

Scale: 3/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

SD-2



MEZZANINE FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

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Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

SCHOOL DEPARTMENT IN LIBRARY BUILDING
OPTIONS 3 & 4

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Job No. 13003.00
Date: 4/5/13

SD-3

BUILDING USE AUDIT
Town of Wayland

School Committee Spaces in Library	Space SF	Building Area SF
Basement		
School Committee Mtg Rm	800	
Staff	159	
Kitchenette	83	
Student Transport	473	
Conference	368	
Sub-Total	1883	
Unassigned	4455	
Basement Total		6338
First Floor		
Reception	408	
Administration	229	
Secretaries & Files	452	
Superintendent	290	
Assistant Superintendent	266	
Conference	713	
File Storage	321	
Human Resource	227	
Business Administration	259	
Account Analyst	94	
Copy Lounge	447	
Secretaries & Files	661	
Student Services	86	
Director of Student Services	197	
School Technology	262	
Data Base Management	91	
METCO Office	203	
School Technology Director	154	
Sub-Total	5360	
Unassigned	867	
First Floor Total		6227
Mezzanine		
File Storage	691	
File Storage	507	
Storage Cage	74	
Sub-Total	1272	
Unassigned (mostly open to below)	3066	
Mezzanine Total		4338

BUILDING AREA TOTAL		**16903**

Assigned Space Total	**8515**	

Current Assigned Space (Library Use)	10299	

COMPREHENSIVE BUILDING/PROGRAM AUDIT
Town of Wayland, Massachusetts

Public Library

Structural

Structural Description:

The original Public Library is a two-story (plus Mezzanine), circa 1900, wood framed building, located at 5 Concord Road in Wayland. A two-story, steel framed, rectangular-shaped addition was constructed to the north of the original building in 1987. Foundations are conventional spread footings, with a concrete slab on grade at the Ground Floor level. The site slopes downwards (approximately 9 feet) from the north to the south. The roof of the original library is a gable form, with a circular dormer on the front (south) side. The roof of the addition is flat, with a raised center section. The total area of the facility (original library and addition) is approximately 14,000 square feet. No construction drawings for the original library were available; however, drawings for the 1988 addition and renovations were reviewed in the preparation of this report.

Program elements at the Ground floor of the original library include Administrative Offices, Technical Services an Exhibit Gallery and the main entrance to the facility. Circulation, a Reference Room and a Reading Room are located at the First Floor. Mezzanine areas on the east and west side of the building support fixed book shelving (stacks). The original library is wood framed; details of the floor and roof construction were not determined at the site; however, it appears that First Floor joists may be 3 x 12 (nominal) @ 12" o.c. A new Ground Floor slab on grade was constructed at the center section of this level when the building was renovated in 1987. Exterior wall construction is brick masonry. Foundations are assumed to be conventional spread footings. FBRA understands that deficiencies were found in the original roof structure when a new tile roof was installed in 2007. According to library personnel, an engineer was retained to evaluate and reinforce the roof structure.

The Children's Room is located at the Ground Floor of the 1987 addition, along with a Program Room on the west side of this level. The entire First Floor of the addition is dedicated to fixed book shelving. The addition is steel framed, with a 2½" thick concrete slab on 2" deep galvanized composite steel deck (4½" total slab thickness) supported by composite steel beams. Roof construction is a 1½" deep galvanized steel roof deck, supported by steel beams. A new

PVC membrane roof was installed in 2007. Ground Floor construction is a 5" thick, concrete slab on grade with an underslab drainage system. Lateral stability for the building (wind and seismic loading) is provided by perimeter reinforced masonry walls, which also serve as the backup for the brick veneer. Foundations are conventional spread footings, proportioned on the basis of a 2 tons per square feet allowable bearing capacity. Perimeter foundation drains were installed at the base of foundation walls. Perimeter and underslab drainage systems discharge to a sump/pump basin, located on the east side of the facility at the interface of the original building and the addition. The drawings indicate the presence of rock at or near the bottom of footing elevation.

Floor and roof construction do not appear to be fire protected; the facility in not sprinklered.

Structural Conditions/Issues – Comments and Recommendations:

Structural conditions at the Public Library were observed during a brief tour of the building on March 11, 2013. Generally speaking, floor and roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members. Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements.

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

- The condition of the exterior brick (Flemish Bond) is generally satisfactory, particularly considering the age of the original library. Repointing is required in some areas. There is extensive vine growth on the front (south) turret (See photo at right); the presence of these vines will hold moisture against the face of the brick and cause deterioration in the long term. Removal of this growth should be considered. Efflorescence was observed in a number of locations on the veneer of the 1987 addition. The condition of the chimney appears to be satisfactory, as viewed from the ground.

- The presence of perimeter and underslab drainage systems (in the 1987 addition) notwithstanding, there have been water issues at the Ground Floor in the past. Storm drains apparently back up during peak rainy periods. The downspouts of the 1987 addition discharge water onto splash blocks, adjacent to the foundation walls (See photo at right). FBRA recommends that water from downspouts be piped away from the building, to minimize the potential for water infiltration at the Ground Floor level and to reduce hydrostatic pressure on the foundation walls.

- Reportedly, there are air circulation problems in the Attic space of the original library, which exacerbated moisture related issues before the tile roof was replaced in 2007. Further review is recommended (Attic space was not accessed during the site visit).

- There are numerous cracks in the plaster ceiling of the main entry at the southwest corner of the original library. This condition may be related to the aforementioned roof deficiencies, which were reportedly addressed during the 2007 roof replacement. Further review/evaluation is recommended, in conjunction with future renovations to the facility.

- Design live loads for the 1987 addition are not indicated on the Structural drawings. The determination of the structural capacity of the floor and roof framing in the original building and the addition is beyond the scope of this preliminary report; however, floor and roof construction appears to be functioning satisfactorily, as intended.

Building Code Requirements and Additional Comments:

Massachusetts State Building Code Requirements – General Comments:

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

The MEBC allows the Design Team to choose one of three (3) compliance methods. Structurally, the Prescriptive Compliance Method is preferred. Regardless of the compliance method chosen, the MEBC may require that the unreinforced masonry walls of the building be evaluated with respect to the provisions of Appendix A1 of the IEBC (depending on the extent of the renovation/alteration work and/or proposed change(s) in use). In addition, Section 101.5.4.0 of the Massachusetts Amendments (Chapter 34) requires that the existing building be investigated in sufficient detail to ascertain the effects of the proposed work (or change in use) on the area under consideration, and the entire building or structure and its foundations, if impacted by the proposed work or change in use.

Additions – General Comments:

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

Renovations/Alterations – General Comments:

Where proposed alterations to existing structural elements carrying gravity loads results in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction. Proposed alterations to existing structural elements carrying lateral load (masonry walls in this case; both the original building and the 1987 addition) which result in an increase in the demand - capacity ratio of over 10% should be avoided, if possible. Essentially, this means that removal of, or major alterations to the existing, unreinforced masonry walls in the building should be minimized. If this is not avoidable, more significant seismic upgrades/reinforcing will be required; potentially including the addition of lateral force resisting elements (braces, shear walls, etc.).

End of Structural Report

TOWN BUILDING ASSESSMENT STUDY AND CAPITAL MASTER PLAN
Town of Wayland, Massachusetts

Library

5 Concord Road

MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS

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

April 5, 2013

GENERAL

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

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

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

MECHANICAL

HEATING

The heating plant generally consists of a single cast iron hot water boiler with an oil fired burner, both of which appear to be in fair condition. The boiler was installed in 1986, and therefore is near the end of its 30 to 35 year life per the latest ASHRAE HVAC Applications Manual.

Oil is stored in a single buried oil tank. The condition of the tank was not reviewed.

The circulation system consists of two in-line pumps that appear to be in fair condition. The pumps appear to have been installed with the boiler, and therefore they are past the 10 to 20 year life expectancy per the latest ASHRAE HVAC Applications Manual.

The pumps are configured for lead/lag operation, such that the lag pump operates automatically upon failure of the lead pump. The operation of the controls providing the automatic switchover was not verified.

The piping configuration is a conventional supply and return; there is no method of varying the supply water temperature (typically inversely with the outside air temperature) to reduce energy consumption and to improve controllability. Therefore the system must operate at high temperatures throughout the heating season in order to protect the boiler from shock.

The terminal heating only units consist of baseboard fin tube/convectors, bare fin tube within casework, flat panel (Runtal) type radiators, cabinet unit heaters, and unit heaters. The units provided/replaced in 1986 generally appear to be in good condition, whereas units that were installed prior to 1986 generally appear to be in fair condition.

AIR CONDITIONING & VENTILATION

Four air handling units (AHU) provide air conditioning and outside air ventilation throughout the building. They appear to be in fair condition. The air handlers were installed in 1986, and therefore are at the end of their 20 to 25 year life per the latest ASHRAE HVAC Applications Manual.

One of the air handling units is located in the attic and is difficult to access, particularly to access the filters, which should be replaced regularly. Additionally, the access hatch to the attic is directly above a fixed in place bookshelf, such that the maintenance personnel have to step on top of the bookshelf in order to access the hatch, and such that accessing the hatch in what would generally be considered as a safe manner is not possible.

Each AHU has a split system direct expansion (DX) refrigerant evaporator coil for air conditioning. Three of the AHUs have integral hot water coils for heating/tempering the

supply air, and the fourth has a duct mounted hot water coil for heating/tempering the supply air.

The AHUs are provided with outside air ductwork and control dampers to provide minimum outside air ventilation. These ventilation systems are not designed to nor do they provide economizer cooling.

Four split system condensing units (CU) are provided - one dedicated to each AHU. They appear to be in fair condition.

The four AHUs allow for only four air conditioning temperature control zones, and as the building generally consists of mostly open larger spaces, four air conditioning temperature control zones is not unreasonable - with one exception. That exception is the AHU that serves both the children's library and the adjacent meeting space on the ground floor. The use/occupancy of these spaces is not similar, therefore the use of a single AHU to serve these spaces would typically result in poor temperature control in the space that did not have a thermostat, and that is the case for this building; the thermostat is in the children's library area, and the temperature control in the adjacent meeting space is poor.

Local exhaust is provided at the restrooms via ceiling mounted return grilles and/or exhaust fans.

An exhaust ventilation system, generally consisting of an intake louver and an exhaust fan, serves the attic, however the controls for this system are not operable.

The IT room, which is adjacent to the boiler room, is served by an exhaust ventilation system that draws air from the adjacent corridor and exhausts it into the return side of the AHU in the boiler room. Exhausting air from the IT room into the return side of an AHU is not in accordance to standard practice, however conceptually and operationally it does not present any code or otherwise objectionable issues. The exhaust fan is controlled by a non-programmable thermostat in the IT room.

TEMPERATURE CONTROLS

The general design concept of the HVAC systems is (or at least should have been according to conventional design practice) that the four AHU fans should operate constantly during the occupied cycle in order to provide constant outside air ventilation. Typically this would be accomplished by a system of programmable controls, however only one of the four thermostats serving the four air handlers is programmable; the three other thermostats are manual. The result of this controls installation is that the four air handling unit fans operate only on call for the either heating and cooling, and therefore they do not provide for continuous outside air ventilation.

The controls for the central and plant type equipment as well as the AHUs are generally stand-alone electric controls; there is no integrated system of controls. This type of control system is difficult to monitor and troubleshoot, and therefore often leads to less than satisfactory ventilation and temperature control, which appears to be the case with this building.

For example, the four AHU heating coils are provided with stand-alone non-programmable controllers set to maintain a constant supply air temperature. This type of control scheme needs to be integrated with the controls for air conditioning and ventilation in order to operate properly and to minimize energy consumption; stand-alone non-programmable controllers are not flexible enough to operate this system at peak efficiency and comfort.

Similarly, the controls for the terminal heating unit control valves are either non-programmable thermostats controlling local control valves, or unit/pipe mounted manually adjustable control valves.

The proper operation of the controls throughout was not reviewed, but judging by the incorrect operation and/or non operation of some of the existing controls witnessed during the walk-thru, it is possible that more than a few of the existing controls are working improperly and/or not working at all.

RECOMMENDATIONS

The boiler, pumps, air handlers, and condensing units are near the ends of their useful lives, and therefore should be replaced within the next 5 to 10 years.

In general, the controls for this system are poor, and therefore the existing controls throughout the building should be replaced with direct digital (DDC) controls. The replacement should include a reconfiguration of the system such that the four AHUs can provide constant outside air ventilation during the occupied cycle.

The meeting room on the ground floor should be provided with separate air conditioning control. If the ventilation provided by the existing AHU serving the meeting room can be set up to provide proper ventilation to the meeting room, supplemental air conditioning could be provided by new ductless split system serving the meeting room only. If the ventilation provided by the existing AHU serving the meeting room cannot be set up to provide proper ventilation to the meeting room, a new split DX air conditioning system with independent outside air ventilation capability should be provided.

The central pumping plant should be reconfigured for primary/secondary pumping, such that the heating loop supply water temperature can be reset inversely with the outside air temperature, to reduce energy consumption and to improve controllability, while protecting the boiler/flue from condensing due to low entering water temperatures.

Safer and easier access should be provided to the air handling unit in the attic.

ELECTRICAL

EXISTING SYSTEMS

The building is served by a single electrical service rated 400amperes, 208Y/120 volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility metering equipment and 400amp distribution panelboard with 400amp main circuit breaker located in the main electrical room. The main distribution equipment is in good condition.

There are a number of electrical panels located in the main electrical room of the Library. These panelboards are ITE panels that were installed during the 1985 addition and renovation. The condition of these panelboards is very good with spare circuit breakers available for new circuits to be added.

The lighting throughout the library consists of decorative pendant fluorescent fixtures, track lighting, recessed compact fluorescent downlights, surface mounted lensed linear fluorescent fixtures and recessed parabolic linear fluorescent fixtures. The majority of the lighting throughout the library was installed during the 1985 addition and renovation and is in good condition. The lighting for the library is controlled by switches. The light levels appear to be within the recommended levels.

The fire alarm system is an FCI zoned fire alarm system. There are manual fire alarm pull stations, horn/strobes and heat/smoke detectors located through the building. The fire alarm system is in poor condition and does not meet the requirements of today's codes.

Exterior lighting is accomplished via building mounted incandescent light fixtures and high pressure sodium area light fixtures located in the parking lot. The building mounted lighting does not appear to meet recommended lighting levels.

Life safety emergency lighting is provided by emergency battery packs with remote heads throughout the library. The equipment was installed during the 1985 addition and renovation and is in good condition. The emergency lighting does not appear to meet code required emergency lighting levels.

Exit signage consists of powered exit signs with battery backup. The layout of exit signage throughout the library does not appear to meet today's codes.

There is currently a DSC security system serving the facility including magnetic contacts at all doors and motion sensor detection devices throughout the library. This system was noted during the walk through as operating without problem.

The IT equipment serving the facility consists of a newer server and network switches located in a ground floor storage closet. This equipment is in good condition. There are a number of wireless access points throughout the facility which appear to provide adequate coverage to meet the facility's needs.

RECOMMENDATIONS

Upgrade existing lighting controls throughout the library to incorporate new automatic lighting controls to comply with latest energy code and increase energy efficiency.

Upgrade existing fire alarm system to new addressable fire alarm system to meet the requirements of today's codes.

Upgrade existing building mounted exterior lighting to new, more energy efficient LED lighting fixtures to meet recommended lighting levels.

Supplement existing emergency lighting to meet the code required emergency lighting levels.

Supplement existing exit sign layout to meet today's code requirements.

PLUMBING

The hot water heating system consists of an electric tank type water heater on the ground floor. It appears to be in fair to good condition.

A sewage ejection system, located on the ground floor, consists of two pumps for redundancy. The condition of the pumps was not reviewed.

The building has both tank type and flush valve type vitreous water closets, but only the water closet in the Men's room on the ground floor is accessible. The water closets appear to be in good condition, but none of the water closets appear to be low flow.

The vitreous china urinal in the Men's room on the ground floor appears to be in good condition, however it does not appear to be low flow.

The stainless steel sink in the staff room on the ground floor appears to be in condition.

The enameled cast iron sink in the janitor's closet on the ground floor appears to be in fair condition.

FIRE PROTECTION

There is no existing fire protection sprinkler system.

BUILDING USE AUDIT
Town of Wayland, Massachusetts

New Site at Town Center

There are five alternate options for the use of this site. The site is difficult due to the many restrictions caused by wetlands and river buffers and flood plains, and as a result each new building scheme has been placed outside the 200' River Front buffer. In doing so the design of the buildings tends to be long and narrow. A separation of twenty feet from the driveway has been shown.

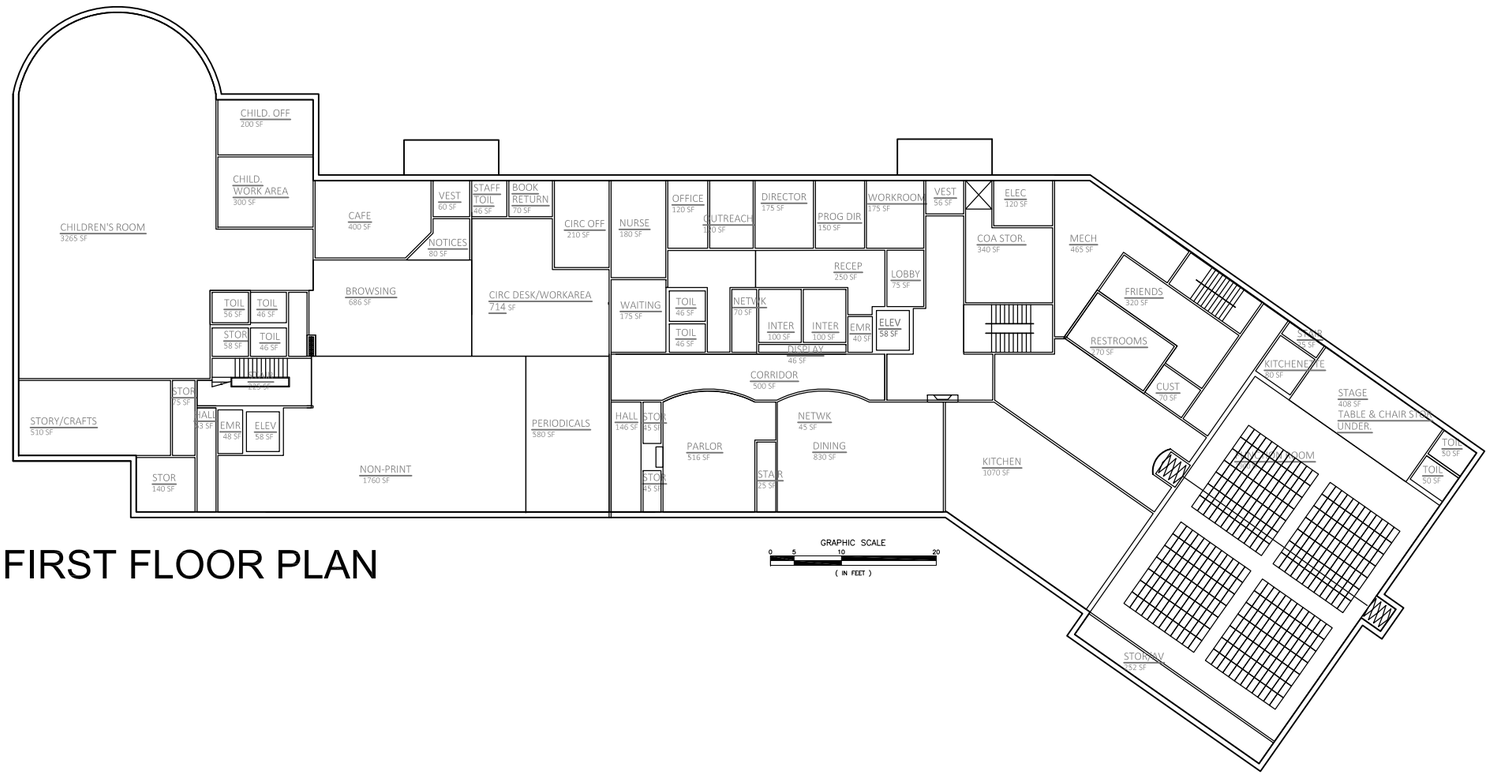
OPTION #1 Includes a new two story building for both the Library and Council-on-Aging with a shared parking lot.
A number of spaces within the building are shared between the two uses but the uses can still operate independently. The shape of the building allows for plenty of natural light into the interior spaces. The function room size is dictated by the COA's needs, but will allow the LIbrary to have much larger events.
The parking is designed to allow school buses to drop off children at the library without having to back up. Similarly there is a dedicated drop off for COA buses.

OPTION #2 includes a one story building for the COA. There is also an option to expand the building to accommodate the Arts Center. As spaces are not shared with the LIbrary there will be some duplication of spaces.

OPTION #3 includes a new two story building for the Library only. There is also an option to expand the building to accommodate the Arts Center. As spaces are not shared with the COA the program space is smaller and will not have the advantage of a large kitchen.

OPTION #4 would include a new Town Hall on the site. This option was not further explored as there was insufficient space at the current Town Hall to accommodate both the Library and COA.

OPTION #5 was also not further explored. It required the use of the existing wood building that was constructed within the 200 foot river front buffer. As with Option #4 the scheme was not further pursued due to the insufficient space at the current Town Hall to accommodate both the Library and COA.



FIRST FLOOR PLAN

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

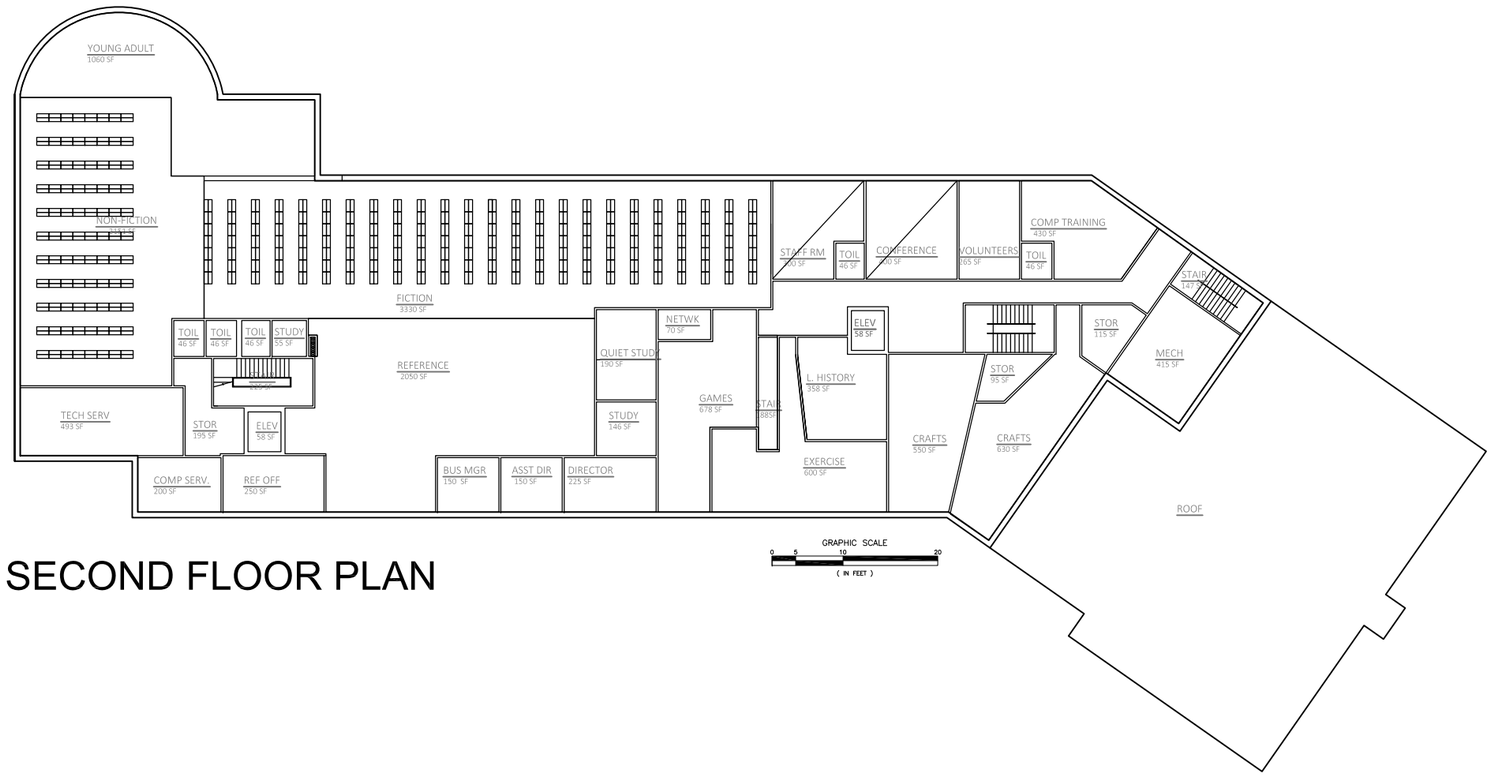
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

LIBRARY/COUNCIL-ON-AGING NEW BUILDING
Option # 1

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

LCAP-1



SECOND FLOOR PLAN

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

Planning 617-964-1700
Architecture 617-964-1701 fax
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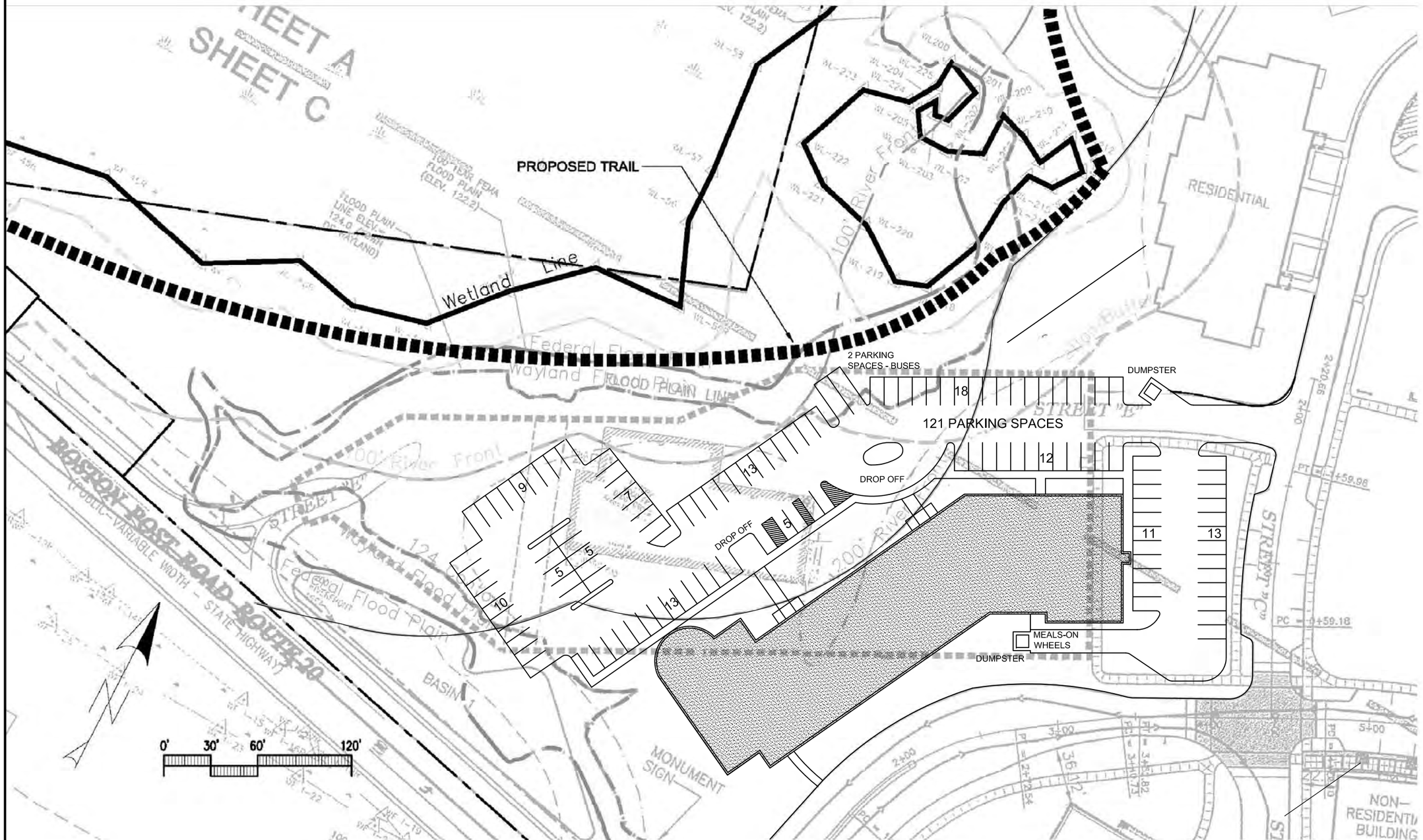
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

LIBRARY/COUNCIL-ON-AGING NEW BUILDING
Option # 1

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

LCAP-2



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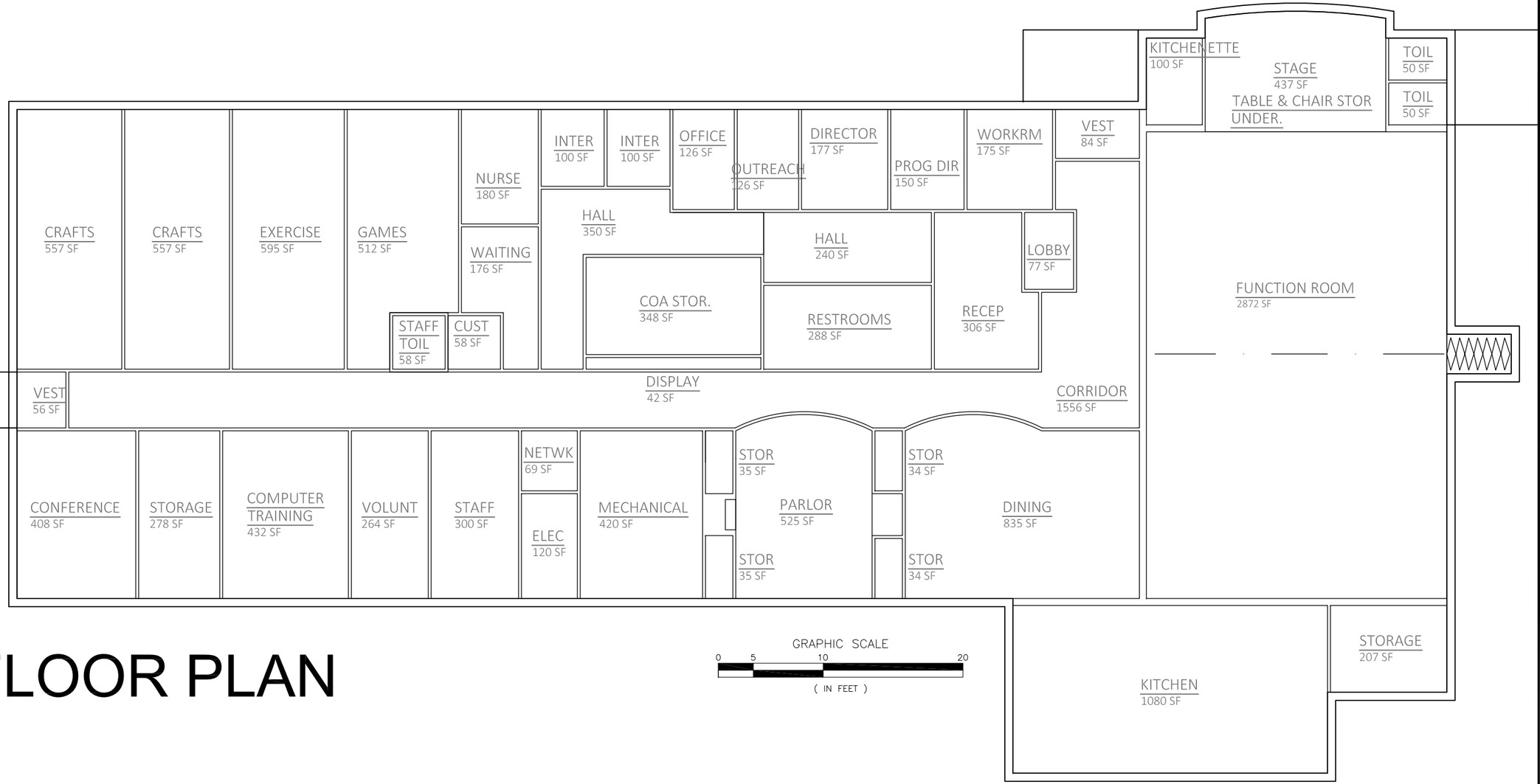
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

LIBRARY/COUNCIL-ON-AGING NEW BUILDING
SITE PLAN Option # 1

Scale: 1/32"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

LCAP-3



FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

Drummey Rosane Anderson, Inc.
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Waltham, MA 02451

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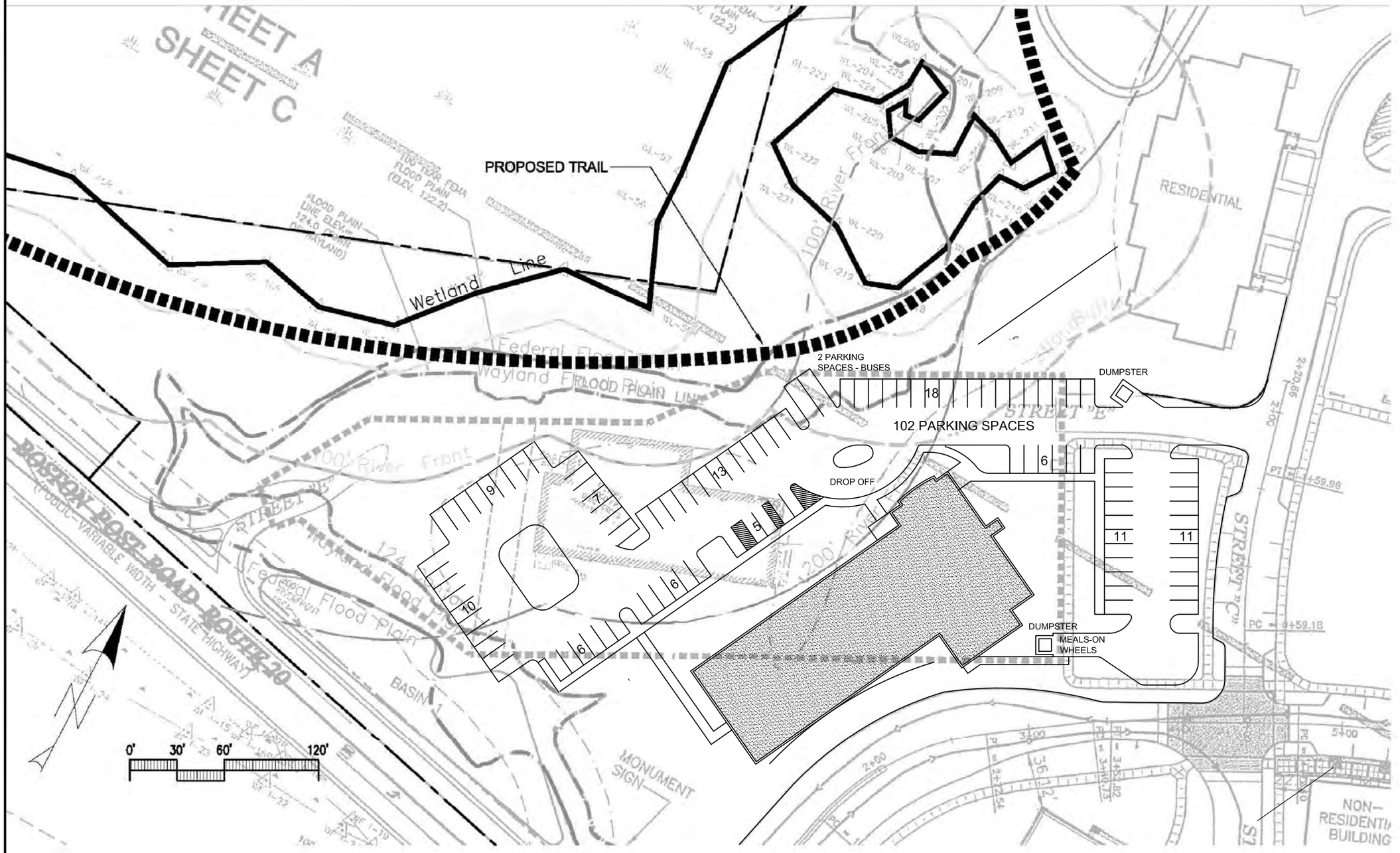
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

COUNCIL-ON-AGING NEW BUILDING
Option # 2

Scale: 1/16"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

COAP-1



D·R·A

Drummey Rosane Anderson, Inc.
235 Bear Hill Road, 4th Floor
Waltham, MA 02451

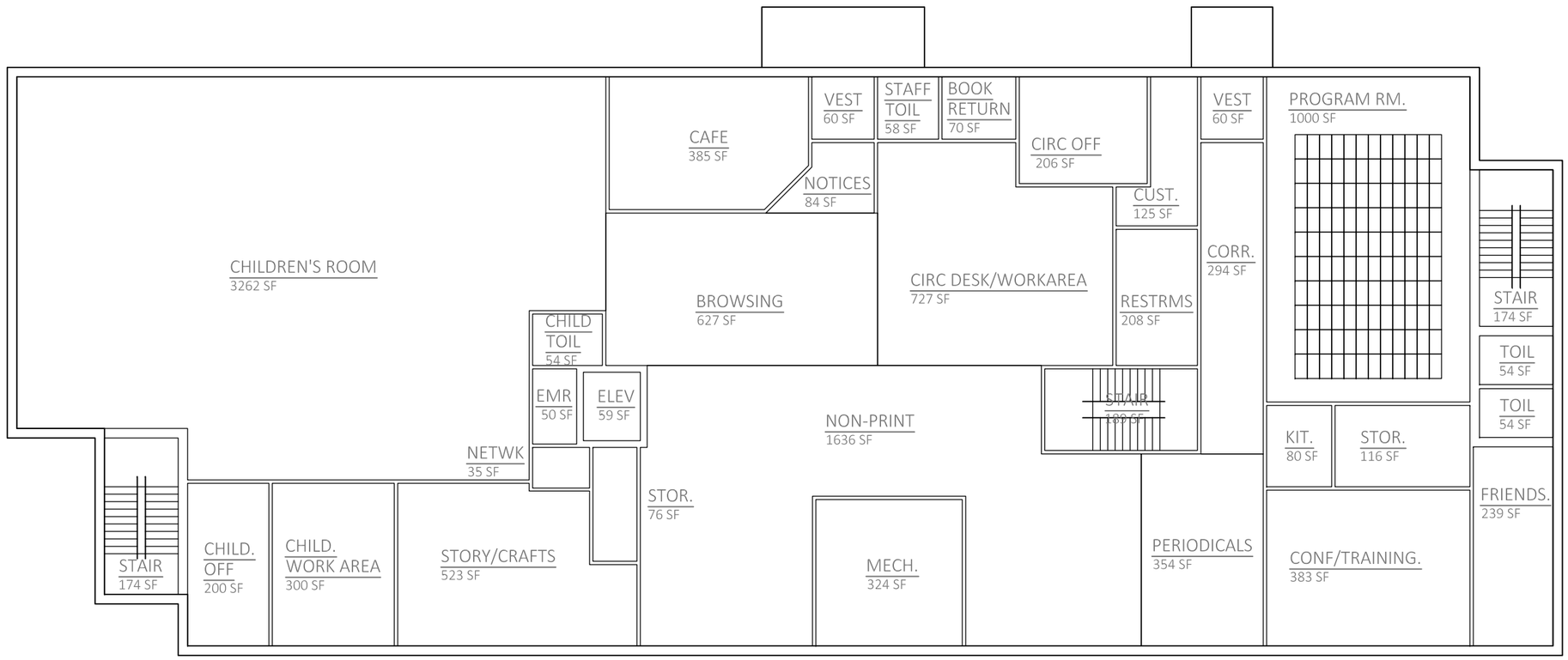
Planning 617-964-1700
Architecture 617-964-1701 fax
Interior Design info@draws.com

Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

COUNCIL-ON-AGING NEW BUILDING
Option # 2 SITE PLAN

Scale: 1/64"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

COAP-2



FIRST FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

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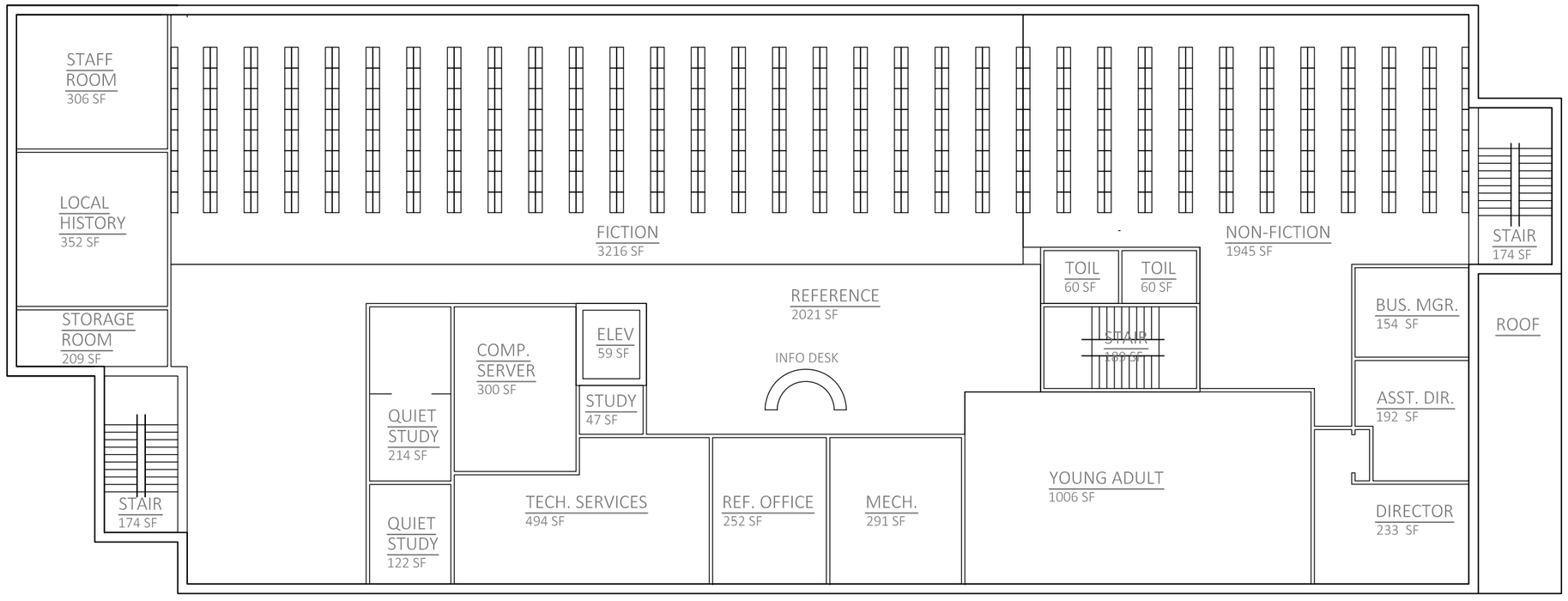
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

LIBRARY NEW BUILDING
Option # 3

Scale: 1/16"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

LP-1



SECOND FLOOR PLAN

GRAPHIC SCALE
0 5 10 20
(IN FEET)

Drummey Rosane Anderson, Inc.
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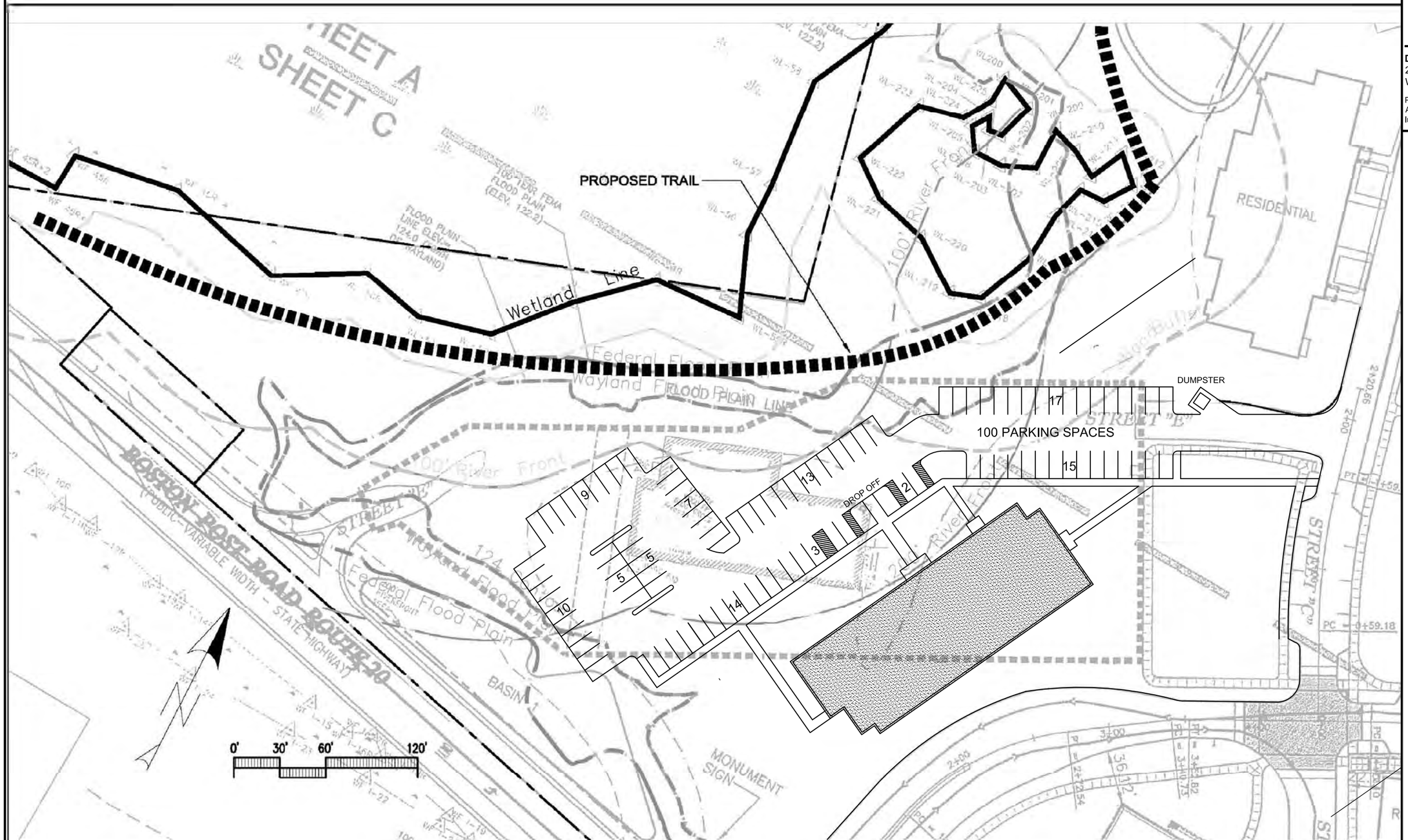
Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

LIBRARY NEW BUILDING
Option # 3

Scale: 1/16"=1'-0"
Drawn by: CGH
Job No. 13003.00
Date: 4/5/13

LP-2



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Town Of Wayland
Town Facilities Audit
Wayland, Massachusetts

COUNCIL-ON-AGING NEW BUILDING
Option # 2 SITE PLAN

Scale:	1/64"=1'-0"
Drawn by:	CGH
Job No.	13003.00
Date:	4/5/13

LP-3

BUILDING USE AUDIT
Town of Wayland

SPACE	Existing Building	KK Diagrams SF	Diagrams less Program SF	DRA: Free Standing New Building Diagrams 2013	Diagrams less SF	DRA: New Building with Library Diagrams 2013	Diagrams less Program SF	DRA: COA In Town Hall Diagrams 2013	Diagrams less Program SF
Reception Lobby		0		77	77	75	75	77	77
Reception		200		306	106	250	50	291	91
Workroom	617	200		175	-25	175	-25	168	-32
Program Director		150		150	0	150	0	143	-7
Director		200		177	-23	175	-25	170	-30
Outreach		120		126	6	120	0	119	-1
Office	175	120		126	6	120	0	119	-1
Interview		120		100	-20	100	-20	94	-26
Interview		120		100	-20	100	-20	94	-26
Nurse		180		180	0	180	0	210	30
Nurse Waiting Room		220		175	-45	175	-45	176	-44
Display Cases		0		42	42	46	46	40	40
Games		500		512	12	678	178	540	40
Exercise		600		595	-5	600	0	667	67
Crafts		500		557	57	550	50	711	211
Crafts		500		557	57	630	130	711	211
Conference	128	500		408	-92	400	-100	529	29
Computer Training		400		432	32	430	30	442	42
Volunteers		265		264	-1	265	0	381	116
Staff Room		300		300	0	300	0	392	92
Network Room		260		69	-191	140	-120	122	-138
COA Storage	80	300		348	48	340	40	282	-18
Parlor		460		525	65	516	56	503	43
Dining		800		835	35	830	30	804	4
Kitchen	171	1200		1080	-120	1070	-130	960	-240
Function Rm & Stage	1172	3243		3309	66	3308	65	3226	-17
Kitchenette		135		100	-35	80	-55	100	-35
Sub-Total	2343	11593		11625	32	11803	210	12071	478
Un-Assigned Space	337			5389					
Total SF	2680			17014					

Shared Spaces

Documents used in study:
Wayland Senior Center Feasibility Study , Draft for Owner Review by GMI Architects. (undated)
Wayland Library/Senior Center Study dated June 26, 2012, by Kang Associates, Inc.

BUILDING USE AUDIT
Town of Wayland

SPACE	Existing Building	Program SF	LLB Diagrams SF	Diagrams less Program SF	KK Diagrams SF	Diagrams less Program SF	DRA: Free Standing New Building Diagrams 2013	Diagrams less Program SF	DRA: New Building with COA Diagrams 2013	Diagrams less Program SF
Building Lobby										
Art Display / Gallery With Case	0	50	0	-50	0	-50	0	-50	0	-50
Café	0	300	400	100	720	420	385	85	400	100
Circulation Desk	223	1245	845	-400	760	-485	707	-538	714	-531
Circulation Workroom	154	300	200	-100	300	0	206	-94	210	-90
Browsing Area	232	400	600	200	5000	4600	627	227	686	286
Adult Fiction Stacks	1580	2340	2340	0	0	-2340	3216	876	3330	990
Adult Non-Fiction Stacks	2782	3130	3130	0	6550	3420	1945	-1185	2151	-979
Reference Services	648	2000	2585	585	0	-2000	1918	-82	2050	50
Reference Office	0	250	260	10	0	-250	252	2	250	0
Periodicals	232	350	580	230	0	-350	354	4	580	230
Non-Print Materials	362	2000	1830	-170	0	-2000	1636	-364	1760	-240
Local History Room	73	350	350	0	350	0	352	2	358	8
Children	2057	5000	4125	-875	4300	-700	4285	-715	4275	-725
Young Adult Room	0	550	1070	520	450	-100	1000	450	1060	510
Program Room	686	1200	1460	260	1439	239	1196	-4	1643	443
Conference/Traing Room	0	450	520	70	400	-50	383	-67	430	-20
Quiet Study Rooms (4)	0	380	380	0	380	0	383	3	391	11
Director's Office	217	225	225	0	225	0	233	8	225	0
Assistant Director's Office	0	150	150	0	150	0	192	42	150	0
Business Manager's Office	97	150	200	50	150	0	154	4	150	0
Technical Services	463	550	550	0	500	-50	494	-56	493	-57
Computer Rm/Network Center	0	300	300	0	260	-40	335	35	340	40
Staff Lunch Room	242	300	350	50	300	0	306	6	300	0
Custodian's Room	0	125	125	0	75	-50	125	0	128	3
Friends Book Sorting	0	200	400	200	300	100	239	39	320	120
TOTAL ASSIGNED SPACE	10048	22295	22975	680	22609	314	20923	-1372	22394	99
Un-Assigned Space	3977	7357	7582	224.4		-7357.35	5396	-1961.35		
TOTAL SF	14025	29652	30557	904.4		-29652.4	26319	-3333.35		

Area includes storage & kitchenette

Shared Spaces

Documents Used in Study:
Construction Documents for Addition and Alterations dated December 1985 by A.Anthony Tappe and Associates
The Library Building Program dated January 22, 2004
Plan sketches of programmed spaces date June 23, 2004 by Lerner Ladds + Bartels, Inc.
Lerner Ladds + Bartels, Inc. Feasibility Study and Architectural Planning dated April, 2005
Tappe Assoc. Inc., Library Program Review and Recommendations dated November 2010 (Preliminary Draft).
GMI Architects, Draft of Revised Program Requirements (undated).
Kang Associates, Inc. Study dated June 26, 2012

Description	Note	Quantity	Unit	Price	Total
Markups - To Be Calculated Cumulatively					
General Conditions					
Project Value Less That 200k			20.00%		
Project Value 200k - 500k			16.00%		
Project Value 500k - 1mil			14.00%		
Project Value 1mil - 2mil			12.00%		
Project Value 2mil - 5mil			10.00%		
Overhead & Profit					
Project Value Less That 200k			23.00%		
Project Value 200k - 500k			18.00%		
Project Value 500k - 1mil			16.00%		
Project Value 1mil - 2mil			14.00%		
Project Value 2mil - 5mil			12.00%		
Design & Price Reserve			15.00%		
Escalation					
1 Years From Now	May-14		4.00%		
2 Years From Now	May-15		8.16%		
3 Years From Now	May-16		12.50%		
4 Years From Now	May-17		17.00%		
5 Years From Now	May-18		21.68%		
Bond					
Project Value Less That 100k			3.00%		
Project Value 100k - 1mil			2.40%		
Project Value 1mil - 2mil			2.00%		
Project Value 2mil - 5mil			1.60%		
Project Value 5mil - 10mil			1.34%		
Soft Costs/Design Fees			30.00%		

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
	Basic Quantities		GFA		Girth	
	basement		2,254	sf	249 lf	
	level 1		33,565	sf	1,296 lf	
	level 2		21,713	sf	1,296 lf	
	General					
29	Add Barrier Within 4" Of Surface Of Handicapped Ramp					$
	add toe kick to both sides of ramp - weld metal rail to existing guardrail		32	sf	89.64	2,868
	Sub Total - Direct Cost					2,868
	General Conditions		20.00%			574
	Overhead & Profit		23.00%			792
	Design & Price Reserve		15.00%			635
	Escalation	May-15	8.16%			397
	Bond		3.00%			158
	Soft Costs/Design Fees		30.00%			1,627
	Total Project Cost					7,051
33	Exterior Stair Railing Replacement At Gym					$
	demo existing railings		20	lf	4.78	96
	new guard rails at stairs		20	lf	182.70	3,654
	disposal		1	ea	28.80	29
	Sub Total - Direct Cost					3,779
	General Conditions		20.00%			756
	Overhead & Profit		23.00%			1,043
	Design & Price Reserve		15.00%			837
	Escalation	May-15	8.16%			523
	Bond		3.00%			208
	Soft Costs/Design Fees		30.00%			2,144
	Total Project Cost					9,290

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
24	Replace Gym Doors - Retain Frame					$
	demo doors		2	leaf	71.70	143
	disposal		1	ea	42.90	43
	insulated 3' hm door		1	leaf	618.91	619
	insulated 2'6" hm door		1	leaf	571.71	572
	extra for vision light		2	ea	97.56	195
	glazing		5	sf	28.32	142
	hardware		2	ea	1,494.83	2,990
	paint doors and frame		2	ea	158.25	317
	Sub Total - Direct Cost					5,021
	General Conditions		20.00%			1,004
	Overhead & Profit		23.00%			1,386
	Design & Price Reserve		15.00%			1,112
	Escalation	May-15	8.16%			695
	Bond		3.00%			277
	Soft Costs/Design Fees		30.00%			2,849
	Total Project Cost					$12,344
19	Provide Extensions On Handrails					$
	provide extensions on handrails		42	ea	256.06	10,755
	Sub Total - Direct Cost					10,755
	General Conditions		20.00%			2,151
	Overhead & Profit		23.00%			2,968
	Design & Price Reserve		15.00%			2,381
	Escalation	May-15	8.16%			1,490
	Bond		3.00%			592
	Soft Costs/Design Fees		30.00%			6,101
	Total Project Cost					26,438
34	Provide Brail Room Signage					$
	provide Brail room signage		57,532	sf	0.26	14,958
	Sub Total - Direct Cost					14,958
	General Conditions		20.00%			2,992
	Overhead & Profit		23.00%			4,129
	Design & Price Reserve		15.00%			3,312
	Escalation	May-15	8.16%			2,072
	Bond		3.00%			824
	Soft Costs/Design Fees		30.00%			8,486
	Total Project Cost					$36,773

	Description	Note	Quantity	Unit	Price	Total
32	Reorganize Furniture To Provide For Door Side Clearance					$
	reorganize furniture - labor only	allowance	5	days	426.41	2,132
	Sub Total - Direct Cost					2,132
	General Conditions		20.00%			426
	Overhead & Profit		23.00%			588
	Design & Price Reserve		15.00%			472
	Escalation	May-15	8.16%			295
	Bond		3.00%			117
	Soft Costs/Design Fees		30.00%			1,209
	Total Project Cost					$5,239
17	Door Clearance Blocked By Partitions					$
	modify partition for door clearance		5	loc	2,967.50	14,838
	cut and patch		1	ls	742.00	742
	Sub Total - Direct Cost					15,580
	General Conditions		20.00%			3,116
	Overhead & Profit		23.00%			4,300
	Design & Price Reserve		15.00%			3,449
	Escalation	May-15	8.16%			2,158
	Bond		3.00%			858
	Soft Costs/Design Fees		30.00%			8,838
	Total Project Cost					$38,299
35	Relocate Defibrillator Cabinet					$
	remove/relocate defibrillator cabinet		1	ea	636.53	637
	defibrillator signage		1	ea	123.17	154
	Sub Total - Direct Cost					791
	General Conditions		20.00%			158
	Overhead & Profit		23.00%			218
	Design & Price Reserve		15.00%			175
	Escalation	May-15	8.16%			109
	Bond		3.00%			44
	Soft Costs/Design Fees		30.00%			448
	Total Project Cost					$1,943

	Description	Note	Quantity	Unit	Price	Total
20	Underside Of Stairs					$
	railing on underside of stair	allowance	12	lf	182.70	2,192
	Sub Total - Direct Cost					2,192
	General Conditions		20.00%			438
	Overhead & Profit		23.00%			605
	Design & Price Reserve		15.00%			485
	Escalation	May-15	8.16%			304
	Bond		3.00%			121
	Soft Costs/Design Fees		30.00%			1,244
	Total Project Cost					$5,389
30	Modify Public Counters For Accessibility					$
	modify counters		14	lf	180.66	2,529
	Sub Total - Direct Cost					2,529
	General Conditions		20.00%			506
	Overhead & Profit		23.00%			698
	Design & Price Reserve		15.00%			560
	Escalation	May-15	8.16%			350
	Bond		3.00%			139
	Soft Costs/Design Fees		30.00%			1,435
	Total Project Cost					$6,217
31	Lifting Of Counters					$
	remove and replace lifting section of counter top		9	sf	68.83	619
	disposal		1	ea	75.00	75
	new swinging gate		1	ea	879.75	880
	electric strike and buzzer		1	ea	395.85	396
	wire and conduit	allowance	50	lf	7.83	392
	cut and patch		1	ls	250.00	250
	Sub Total - Direct Cost					2,612
	General Conditions		20.00%			522
	Overhead & Profit		23.00%			721
	Design & Price Reserve		15.00%			578
	Escalation	May-15	8.16%			362
	Bond		3.00%			144
	Soft Costs/Design Fees		30.00%			1,482
	Total Project Cost					$6,421

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
22	Council On Aging Kitchen					$
	modify counters to provide knee space at sinks		2	ea	2,529.22	5,058
	replace sink with shallower sink		2	ea	1,895.67	3,791
	disposal		1	ea	75.00	75
	Sub Total - Direct Cost					8,924
	General Conditions		20.00%			1,785
	Overhead & Profit		23.00%			2,463
	Design & Price Reserve		15.00%			1,976
	Escalation	May-15	8.16%			1,236
	Bond		3.00%			492
	Soft Costs/Design Fees		30.00%			5,063
	Total Project Cost					$21,939
36	Replace Women's Room Sink					$
	replace sink and faucet		1	ea	1,531.53	1,532
	disposal		1	ea	75.00	75
	Sub Total - Direct Cost					1,607
	General Conditions		20.00%			321
	Overhead & Profit		23.00%			443
	Design & Price Reserve		15.00%			356
	Escalation	May-15	8.16%			223
	Bond		3.00%			89
	Soft Costs/Design Fees		30.00%			912
	Total Project Cost					$3,951

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778 GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
37	Expand Men's Room At Gymnasium					$
	demo wall		16	lf	9.56	153
	demo door		2	ea	47.37	95
	demo floor/ceilings		94	sf	1.15	108
	disposal		1	ea	106.80	107
	infill doorway		21	sf	17.81	374
	new 3x7 h.m. door and hardware		1	ea	1,885.05	1,885
	ceramic tile wainscot		156	sf	15.19	2,370
	ceramic tile - floors		94	sf	15.13	1,422
	gyp ceiling	small area	94	sf	7.72	726
	paint walls	small area	94	sf	1.23	116
	paint ceilings	small area	94	sf	1.84	173
	specialties	allowance	1	ea	9,853.20	9,853
	plumbing fixtures	allowance	8	ea	5,355.00	42,840
	HVAC rework	allowance	94	sf	21.42	2,013
	electrical rework	allowance	94	sf	16.07	1,511
	Sub Total - Direct Cost					63,746
	General Conditions		20.00%			12,749
	Overhead & Profit		23.00%			17,594
	Design & Price Reserve		15.00%			14,113
	Escalation	May-15	8.16%			8,829
	Bond		2.40%			2,809
	Soft Costs/Design Fees		30.00%			35,952
	Total Project Cost					155,792
18	Steps To Stage And Corridor					$
	add beveled wood siding to riser		56	lfr	23.84	1,335
	add vinyl treads an risers		56	lfr	19.75	1,106
	Sub Total - Direct Cost					2,441
	General Conditions		20.00%			488
	Overhead & Profit		23.00%			674
	Design & Price Reserve		15.00%			540
	Escalation	May-15	8.16%			338
	Bond		3.00%			134
	Soft Costs/Design Fees		30.00%			1,385
	Total Project Cost					6,000

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
19	Handrails At Stair Next To Stage					$
	handrails		10	lf	182.70	1,827
	Sub Total - Direct Cost					1,827
	General Conditions		20.00%			365
	Overhead & Profit		23.00%			504
	Design & Price Reserve		15.00%			404
	Escalation	May-15	8.16%			253
	Bond		3.00%			101
	Soft Costs/Design Fees		30.00%			1,036
	Total Project Cost					4,490
23	Door Hardware Around Gymnasium					$
	replace knob set with levers	allowance	12	ea	959.84	11,518
	disposal		1	ea	300.00	300
	add swing clear butts to doors	allowance	2	ea	490.93	982
	Sub Total - Direct Cost					12,800
	General Conditions		20.00%			2,560
	Overhead & Profit		23.00%			3,533
	Design & Price Reserve		15.00%			2,834
	Escalation	May-15	8.16%			1,773
	Bond		3.00%			705
	Soft Costs/Design Fees		30.00%			7,262
	Total Project Cost					31,467
38	Threshold From Gym To Corridor					$
	replace threshold at gym	allow	12	lf	44.06	529
	Sub Total - Direct Cost					529
	General Conditions		20.00%			106
	Overhead & Profit		23.00%			146
	Design & Price Reserve		15.00%			117
	Escalation	May-15	8.16%			73
	Bond		3.00%			29
	Soft Costs/Design Fees		30.00%			300
	Total Project Cost					1,300

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
39	Stair Adjacent To Pre-School Elevator					$
	add railing extensions		4	ea	256.06	1,024
	Sub Total - Direct Cost					1,024
	General Conditions		20.00%			205
	Overhead & Profit		23.00%			283
	Design & Price Reserve		15.00%			227
	Escalation	May-15	8.16%			142
	Bond		3.00%			56
	Soft Costs/Design Fees		30.00%			581
	Total Project Cost					2,518
6	Infill Doorway At Gym/Stair					$
	infill doorway - masonry		21	sf	39.61	832
	tooth & bonding		14	lf	14.90	209
	Sub Total - Direct Cost					1,041
	General Conditions		20.00%			208
	Overhead & Profit		23.00%			287
	Design & Price Reserve		15.00%			230
	Escalation	May-15	8.16%			144
	Bond		3.00%			57
	Soft Costs/Design Fees		30.00%			590
	Total Project Cost					2,557
67	Ceiling Tile Replacement					$
	demo 12x12 ceiling tiles - asbestos	allowance	80	sf	14.34	1,147
	disposal		1	ea	500.00	500
	new 2x2 act tiles to replace 12x12 tiles		80	sf	4.02	322
	Sub Total - Direct Cost					1,969
	General Conditions		20.00%			394
	Overhead & Profit		23.00%			543
	Design & Price Reserve		15.00%			436
	Escalation	May-15	8.16%			273
	Bond		3.00%			108
	Soft Costs/Design Fees		30.00%			1,117
	Total Project Cost					4,840

	Description	Note	Quantity	Unit	Price	Total
68	Remove Wall Plugs And Patch Tiles/Grout					$
	remove wall plugs and patch tiles/grout	allowance	32	ea	92.18	2,950
	Sub Total - Direct Cost					2,950
	General Conditions		20.00%			590
	Overhead & Profit		23.00%			814
	Design & Price Reserve		15.00%			653
	Escalation	May-15	8.16%			409
	Bond		3.00%			162
	Soft Costs/Design Fees		30.00%			1,673
	Total Project Cost					7,251
69	Custodian Closet					$
	paint door and frame		1	ea	307.25	307
	replace door hardware with lever type		1	ea	959.84	960
	Sub Total - Direct Cost					1,267
	General Conditions		20.00%			253
	Overhead & Profit		23.00%			350
	Design & Price Reserve		15.00%			281
	Escalation	May-15	8.16%			176
	Bond		3.00%			70
	Soft Costs/Design Fees		30.00%			719
	Total Project Cost					3,116
70	Rear Stair To 2nd Floor					$
	rubber treads and risers		71	lfr	19.75	1,402
	Sub Total - Direct Cost					1,402
	General Conditions		20.00%			280
	Overhead & Profit		23.00%			387
	Design & Price Reserve		15.00%			310
	Escalation	May-15	8.16%			194
	Bond		3.00%			77
	Soft Costs/Design Fees		30.00%			795
	Total Project Cost					3,445

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778 GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
19	Rear Stair To 2nd Floor					$
	demo guardrail		20	lf	4.78	96
	disposal		1	ea	28.80	29
	replace guardrail on stair		20	lf	182.70	3,654
	Sub Total - Direct Cost					3,779
	General Conditions		20.00%			756
	Overhead & Profit		23.00%			1,043
	Design & Price Reserve		15.00%			837
	Escalation	May-15	8.16%			523
	Bond		3.00%			208
	Soft Costs/Design Fees		30.00%			2,144
	Total Project Cost					9,290
40	Drinking Fountain					$
	remove drinking fountain		1	ea	71.70	72
	disposal		1	ea	21.60	22
	repair wall		1	ea	296.75	297
	new dual height drinking fountain		1	ea	2,270.52	2,271
	Sub Total - Direct Cost					2,662
	General Conditions		20.00%			532
	Overhead & Profit		23.00%			735
	Design & Price Reserve		15.00%			589
	Escalation	May-15	8.16%			369
	Bond		3.00%			147
	Soft Costs/Design Fees		30.00%			1,510
	Total Project Cost					6,544
71	Floors					$
	demo existing floor tiles	asbestos	2,490	sf	4.78	11,902
	dumpster rental		1	weeks	725.60	726
	load & truck	10 mile round trip	20	cy	54.59	1,092
	dump charges		8	ton	86.04	688
	sheet vinyl		2,490	sf	7.29	18,152
	vct tiles in storage rooms		305	sf	2.97	906
	vinyl base		2,490	sf	0.72	1,793
	Sub Total - Direct Cost					35,259
	General Conditions		20.00%			7,052
	Overhead & Profit		23.00%			9,732
	Design & Price Reserve		15.00%			7,806
	Escalation	May-15	8.16%			4,884
	Bond		3.00%			1,942
	Soft Costs/Design Fees		30.00%			20,003
	Total Project Cost					86,678

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778 GFA 57,532

	Description	Note	Quantity	Unit	Price	Total
28	Add Lift To Stage					$
	lift at stage		1	ea	16,171.88	16,172
	wire and conduit		100	lf'	12.68	1,268
	cut and patch		1	ea	928.01	928
	Sub Total - Direct Cost					18,368
	General Conditions		20.00%			3,674
	Overhead & Profit		23.00%			5,070
	Design & Price Reserve		15.00%			4,067
	Escalation	May-15	8.16%			2,544
	Bond		3.00%			1,012
	Soft Costs/Design Fees		30.00%			10,421
	Total Project Cost					45,156
72	Strip And Refinish Stage And Steps					$
	strip and refinish stage		1,169	sf	11.85	13,853
	strip and refinish steps		30	lfr	29.62	889
	Sub Total - Direct Cost					14,742
	General Conditions		20.00%			2,948
	Overhead & Profit		23.00%			4,069
	Design & Price Reserve		15.00%			3,264
	Escalation	May-15	8.16%			2,042
	Bond		3.00%			812
	Soft Costs/Design Fees		30.00%			8,363
	Total Project Cost					36,240
92	Floors In Adjacent Corridor					$
	demo existing floor tiles	asbestos	109	sf	14.34	1,563
	disposal	asbestos	1	ea	478.00	478
	sheet vinyl		109	sf	7.29	795
	Sub Total - Direct Cost					2,836
	General Conditions		20.00%			567
	Overhead & Profit		23.00%			783
	Design & Price Reserve		15.00%			628
	Escalation	May-15	8.16%			393
	Bond		3.00%			156
	Soft Costs/Design Fees		30.00%			1,609
	Total Project Cost					6,972

TOWN OF WAYLAND FACILITIES AUDIT
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	Description	Note	Quantity	Unit	Price	Total
6	Extend Corridor Adjacent To Stage					$
	demo 3x7 door		1	ea	43.02	43
	disposal		1	ea	23.90	24
	new wall		200	sf	9.58	1,916
	new doors,h.m. 6x7 frame, hardware		1	ea	2,077.02	2,077
	paint walls		200	sf	1.23	246
	Sub Total - Direct Cost					4,306
	General Conditions		20.00%			861
	Overhead & Profit		23.00%			1,188
	Design & Price Reserve		15.00%			953
	Escalation	May-15	8.16%			596
	Bond		3.00%			237
	Soft Costs/Design Fees		30.00%			2,442
	Total Project Cost					10,583
73	Cupola Leak					$
	remove plastic sheeting		1	ea	259.50	260
	drainage pan suspended		1	ea	803.25	803
	Sub Total - Direct Cost					1,063
	General Conditions		20.00%			213
	Overhead & Profit		23.00%			293
	Design & Price Reserve		15.00%			235
	Escalation	May-15	8.16%			147
	Bond		3.00%			59
	Soft Costs/Design Fees		30.00%			603
	Total Project Cost					2,613
13	Crawl Space					$
	vapor barrier		11,000	sf	1.43	15,730
	concrete slab		11,000	sf	13.04	143,440
	demo brick for vents at perimeter		8	ea	231.70	1,962
	disposal		1	ea	588.60	589
	louvers	12x12	8	ea	309.82	2,479
	paint louver		8	ea	46.34	371
	Sub Total - Direct Cost					164,571
	General Conditions		20.00%			32,914
	Overhead & Profit		23.00%			45,422
	Design & Price Reserve		15.00%			36,436
	Escalation		8.16%			22,794
	Bond		2.40%			7,251
	Soft Costs/Design Fees		30.00%			92,816
	Total Project Cost					402,204

	Description	Note	Quantity	Unit	Price	Total
	EXTERIOR					
	North-East Elevation					
51	North East Ramp					$
	demo top 3 courses of brick		34	lf	8.12	276
	disposal		1	ea	82.80	83
	new brick		34	lf	46.34	1,576
	flashings		34	lf	17.15	583
	replace additional damaged brick	allowance	34	lf	99.30	3,376
	Sub Total - Direct Cost					5,894
	General Conditions		20.00%			1,179
	Overhead & Profit		23.00%			1,627
	Design & Price Reserve		15.00%			1,305
	Escalation	May-15	8.16%			816
	Bond		3.00%			325
	Soft Costs/Design Fees		30.00%			3,344
	Total Project Cost					14,490
49	Pilaster Bases					$
	replace rotted wood and paint	allowance	4	ea	430.15	1,721
	Sub Total - Direct Cost					1,721
	General Conditions		20.00%			344
	Overhead & Profit		23.00%			475
	Design & Price Reserve		15.00%			381
	Escalation	May-15	8.16%			238
	Bond		3.00%			95
	Soft Costs/Design Fees		30.00%			976
	Total Project Cost					4,230
62	Pilaster Bases Concrete Repair					$
	repair concrete at pilaster adjacent to ramp	allowance	1	ea	567.50	568
	Sub Total - Direct Cost					568
	General Conditions		20.00%			114
	Overhead & Profit		23.00%			157
	Design & Price Reserve		15.00%			126
	Escalation	May-15	8.16%			79
	Bond		3.00%			31
	Soft Costs/Design Fees		30.00%			323
	Total Project Cost					1,398

	Description	Note	Quantity	Unit	Price	Total
48	Window Sills					$
	strip, repair, sand, paint window sills	allowance	500	lf	18.44	9,220
	Sub Total - Direct Cost					9,220
	General Conditions		20.00%			1,844
	Overhead & Profit		23.00%			2,545
	Design & Price Reserve		15.00%			2,041
	Escalation	May-15	8.16%			1,277
	Bond		3.00%			508
	Soft Costs/Design Fees		30.00%			5,231
	Total Project Cost					22,666
58	Louver To Boiler Room					$
	paint door and frame		2	ea	120.44	241
	paint louvers		42	sf	5.78	243
	Sub Total - Direct Cost					484
	General Conditions		20.00%			97
	Overhead & Profit		23.00%			134
	Design & Price Reserve		15.00%			107
	Escalation	May-15	8.16%			67
	Bond		3.00%			27
	Soft Costs/Design Fees		30.00%			275
	Total Project Cost					1,191
11	Repair Exterior Steps					$
	cut out broken material and rusted rebar	allow 6 steps at 6	36	lfr	33.46	1,205
	patch steps		36	lfr	56.75	2,043
	Sub Total - Direct Cost					3,248
	General Conditions		20.00%			650
	Overhead & Profit		23.00%			897
	Design & Price Reserve		15.00%			719
	Escalation	May-15	8.16%			450
	Bond		3.00%			179
	Soft Costs/Design Fees		30.00%			1,843
	Total Project Cost					7,986

	Description	Note	Quantity	Unit	Price	Total
59	Metal Soffits					
	remove rust		500	sf	4.30	2,150
	paint soffits		500	sf	2.27	1,135
	Sub Total - Direct Cost					3,285
	General Conditions		20.00%			657
	Overhead & Profit		23.00%			907
	Design & Price Reserve		15.00%			727
	Escalation	May-15	8.16%			455
	Bond		3.00%			181
	Soft Costs/Design Fees		30.00%			1,864
	Total Project Cost					8,076
53	Clean Window frames and pediments					
	clean window frames and pediments	allowance	30	ea	33.46	1,004
	Sub Total - Direct Cost					1,004
	General Conditions		20.00%			201
	Overhead & Profit		23.00%			277
	Design & Price Reserve		15.00%			222
	Escalation	May-15	8.16%			139
	Bond		3.00%			55
	Soft Costs/Design Fees		30.00%			569
	Total Project Cost					2,467
50	Pre School Wing fascia/gutters					
	repair fascia and gutters		99	lf	51.44	5,093
	Sub Total - Direct Cost					5,093
	General Conditions		20.00%			1,019
	Overhead & Profit		23.00%			1,406
	Design & Price Reserve		15.00%			1,128
	Escalation	May-15	8.16%			706
	Bond		3.00%			281
	Soft Costs/Design Fees		30.00%			2,890
	Total Project Cost					12,523

	Description	Note	Quantity	Unit	Price	Total
63	Frame Around Previous Entrance					
	scrape and repaint previous door frame	ornamental heade	20	lf	43.02	860
	Sub Total - Direct Cost					860
	General Conditions		20.00%			172
	Overhead & Profit		23.00%			237
	Design & Price Reserve		15.00%			190
	Escalation	May-15	8.16%			119
	Bond		3.00%			47
	Soft Costs/Design Fees		30.00%			488
	Total Project Cost					2,113
57	Repair Downspout					
	cleanout gutter		20	lf	4.78	96
	repair as needed	allowance	1	ea	285.75	286
	Sub Total - Direct Cost					382
	General Conditions		20.00%			76
	Overhead & Profit		23.00%			105
	Design & Price Reserve		15.00%			84
	Escalation	May-15	8.16%			53
	Bond		3.00%			21
	Soft Costs/Design Fees		30.00%			216
	Total Project Cost					937
65	Pilasters At Large Hearing Room					
	add pressure treated blocking behind pilasters	4pil@13' x 2 si	104	lf	7.49	779
	add trim at pilaster edges	4pil@13' x 2 si	104	lf	17.30	1,799
	Sub Total - Direct Cost					2,578
	General Conditions		20.00%			516
	Overhead & Profit		23.00%			712
	Design & Price Reserve		15.00%			571
	Escalation	May-15	8.16%			357
	Bond		3.00%			142
	Soft Costs/Design Fees		30.00%			1,463
	Total Project Cost					6,339

	Description	Note	Quantity	Unit	Price	Total
55	Windows At Large Hearing Room Vestibule					
	remove and reputty windows	8 panes each	2	ea	367.15	734
	strip and paint windows	8 panes each	16	sf	18.44	295
	Sub Total - Direct Cost					1,029
	General Conditions		20.00%			206
	Overhead & Profit		23.00%			284
	Design & Price Reserve		15.00%			228
	Escalation	May-15	8.16%			143
	Bond		3.00%			57
	Soft Costs/Design Fees		30.00%			584
	Total Project Cost					2,531
47	Siding At Large Hearing Room Vestibule					
	repair siding with new boards	22' wallx12' high	264	sf	4.60	1,214
	strip and paint siding	22' wallx12' high	264	sf	7.99	2,109
	Sub Total - Direct Cost					3,323
	General Conditions		20.00%			665
	Overhead & Profit		23.00%			917
	Design & Price Reserve		15.00%			736
	Escalation	May-15	8.16%			460
	Bond		3.00%			183
	Soft Costs/Design Fees		30.00%			1,885
	Total Project Cost					8,169
65	Pilaster Base At Vestibule					
	repair pilaster base at vestibule		1	ea	403.55	404
	Sub Total - Direct Cost					404
	General Conditions		20.00%			81
	Overhead & Profit		23.00%			112
	Design & Price Reserve		15.00%			90
	Escalation	May-15	8.16%			56
	Bond		3.00%			22
	Soft Costs/Design Fees		30.00%			230
	Total Project Cost					995

	Description	Note	Quantity	Unit	Price	Total
48	Window Sills Hearing Room To Gym					
	repair and repaint sills		35	lf	18.44	645
	Sub Total - Direct Cost					645
	General Conditions		20.00%			129
	Overhead & Profit		23.00%			178
	Design & Price Reserve		15.00%			143
	Escalation	May-15	8.16%			89
	Bond		3.00%			36
	Soft Costs/Design Fees		30.00%			366
	Total Project Cost					1,586
65	Pilaster Base At Gymnasium					
	repair pilaster base at gymnasium		1	ea	403.55	404
	Sub Total - Direct Cost					404
	General Conditions		20.00%			81
	Overhead & Profit		23.00%			112
	Design & Price Reserve		15.00%			90
	Escalation	May-15	8.16%			56
	Bond		3.00%			22
	Soft Costs/Design Fees		30.00%			230
	Total Project Cost					995
53	Repaint Cornice At Gymnasium					
	paint cornice - gym perimeter		383	lf	12.29	4,707
	Sub Total - Direct Cost					4,707
	General Conditions		20.00%			941
	Overhead & Profit		23.00%			1,299
	Design & Price Reserve		15.00%			1,042
	Escalation	May-15	8.16%			652
	Bond		3.00%			259
	Soft Costs/Design Fees		30.00%			2,670
	Total Project Cost					11,570

	Description	Note	Quantity	Unit	Price	Total
85	Re-place Brocken Glass At Gym					
	replace glass pane		1	ea	262.25	262
	Sub Total - Direct Cost					262
	General Conditions		20.00%			52
	Overhead & Profit		23.00%			72
	Design & Price Reserve		15.00%			58
	Escalation	May-15	8.16%			36
	Bond		3.00%			14
	Soft Costs/Design Fees		30.00%			148
	Total Project Cost					642
	North-West Elevation					
53	Clean Gymnasium Cornice On Northwest Elevation					
	clean gym cornice		107	lf	2.39	256
	Sub Total - Direct Cost					256
	General Conditions		20.00%			51
	Overhead & Profit		23.00%			71
	Design & Price Reserve		15.00%			57
	Escalation	May-15	8.16%			35
	Bond		3.00%			14
	Soft Costs/Design Fees		30.00%			145
	Total Project Cost					629
	South-West Elevation					
52	Repoint Cast Stone Cornice On South West Elevation					
	repoint cast stone cornice		305	lf	32.33	9,861
	Sub Total - Direct Cost					9,861
	General Conditions		20.00%			1,972
	Overhead & Profit		23.00%			2,722
	Design & Price Reserve		15.00%			2,183
	Escalation	May-15	8.16%			1,366
	Bond		3.00%			543
	Soft Costs/Design Fees		30.00%			5,594
	Total Project Cost					24,241

	Description	Note	Quantity	Unit	Price	Total
52	Pre School Wing fascia/gutters					
	repair fascia and gutters		99	lf	51.44	5,093
	Sub Total - Direct Cost					5,093
	General Conditions		20.00%			1,019
	Overhead & Profit		23.00%			1,406
	Design & Price Reserve		15.00%			1,128
	Escalation	May-15	8.16%			706
	Bond		3.00%			281
	Soft Costs/Design Fees		30.00%			2,890
	Total Project Cost					12,523
	South-East Elevation					
48	Window Sills					$
	repair and repaint sills		132	lf	18.44	2,434
	Sub Total - Direct Cost					2,434
	General Conditions		20.00%			487
	Overhead & Profit		23.00%			672
	Design & Price Reserve		15.00%			539
	Escalation	May-15	8.16%			337
	Bond		3.00%			134
	Soft Costs/Design Fees		30.00%			1,381
	Total Project Cost					5,984
	Mechanical					
76	Replace Pneumatic Controls					$
	replace pneumatic controls with DDC system		57,532	sf	3.75	215,745
	disposal		1	ea	23,106.29	23,106
	Sub Total - Direct Cost					238,851
	General Conditions		16.00%			38,216
	Overhead & Profit		18.00%			49,872
	Design & Price Reserve		15.00%			49,041
	Escalation	May-15	8.16%			30,680
	Bond		2.40%			9,760
	Soft Costs/Design Fees		30.00%			124,926
	Total Project Cost					541,346

	Description	Note	Quantity	Unit	Price	Total
	Replace/Reconfigure Temperature Control Zones					$
	replace/reconfigure temperature control zones		57,532	sf	1.61	92,627
	Sub Total - Direct Cost					92,627
	General Conditions		20.00%			18,525
	Overhead & Profit		23.00%			25,565
	Design & Price Reserve		15.00%			20,508
	Escalation	May-15	8.16%			12,830
	Bond		2.40%			4,081
	Soft Costs/Design Fees		30.00%			52,241
	Total Project Cost					226,377
	Convert 3 Central Air Handlers To Dedicated Outside Air Systems					$
	convert 3 central air handlers to outside air system		3	ea	13,387.50	40,163
	provide local air condition via VRV/chilled beams/fan coil		57,532	sf	42.84	2,464,671
	Sub Total - Direct Cost					2,504,834
	General Conditions		10.00%			250,483
	Overhead & Profit		12.00%			330,638
	Design & Price Reserve		15.00%			462,893
	Escalation	May-15	8.16%			289,586
	Bond		1.60%			61,415
	Soft Costs/Design Fees		30.00%			1,169,955
	Total Project Cost					5,069,804
77	Replace Unit Ventilators In Pre-School					$
	replace unit ventilators		4	ea	7,095.38	28,382
	disposal		4	ea	750.00	3,000
	Sub Total - Direct Cost					31,382
	General Conditions		20.00%			6,276
	Overhead & Profit		23.00%			8,661
	Design & Price Reserve		15.00%			6,948
	Escalation	May-15	8.16%			4,347
	Bond		3.00%			1,728
	Soft Costs/Design Fees		30.00%			17,803
	Total Project Cost					77,145

	Description	Note	Quantity	Unit	Price	Total
78	Replace Lead/Lag Pumps					$
	replace lead/lag pumps with single lead/lag pump and VFD		3	ea	5,355.00	16,065
	disposal		3	ea	1,606.50	4,820
	motor connections and wiring		3	ea	1,224.15	3,672
	Sub Total - Direct Cost					24,557
	General Conditions		20.00%			4,911
	Overhead & Profit		23.00%			6,778
	Design & Price Reserve		15.00%			5,437
	Escalation	May-15	8.16%			3,401
	Bond		3.00%			1,353
	Soft Costs/Design Fees		30.00%			13,931
	Total Project Cost					60,368
79	Add Primary/Secondary Pumping System To Heating Plant					$
	add primary/secondary pumping system	allowance	1	ea	21,420.00	21,420
	motor connections and wiring		1	ea	2,448.31	2,448
	Sub Total - Direct Cost					23,868
	General Conditions		20.00%			4,774
	Overhead & Profit		23.00%			6,588
	Design & Price Reserve		15.00%			5,285
	Escalation	May-15	8.16%			3,306
	Bond		3.00%			1,315
	Soft Costs/Design Fees		30.00%			13,541
	Total Project Cost					58,677
	Electrical					
7	Upgrade Main Electrical Service And Power Distribution Equipment					$
	upgrade service equipment and distribution equipment		57,532	sf	4.61	265,223
	Sub Total - Direct Cost					265,223
	General Conditions		16.00%			42,436
	Overhead & Profit		18.00%			55,379
	Design & Price Reserve		15.00%			54,456
	Escalation	May-15	8.16%			34,068
	Bond		2.40%			10,837
	Soft Costs/Design Fees		30.00%			138,720
	Total Project Cost					601,119

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL
WAYLAND, MA 01778

GFA 57,532

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
80	Upgrade Lighting					$
	demo lighting		57,532	sf	0.68	39,122
	pcb abatement		1	ea	10,000.00	10,000
	dumpster rental		2	weeks	725.60	1,451
	load & truck	10 mile round trip	40	cy	54.59	2,184
	dump charges		16	ton	86.04	1,377
	new lighting throughout		57,532	sf	13.57	780,709
	Sub Total - Direct Cost					834,843
	General Conditions		14.00%			116,878
	Overhead & Profit		16.00%			152,275
	Design & Price Reserve		15.00%			165,599
	Escalation	May-15	8.16%			103,599
	Bond		2.00%			27,464
	Soft Costs/Design Fees		30.00%			420,197
	Total Project Cost					1,820,855
89	Automatic Lighting Controls					$
	automatic lighting controls throughout		57,532	sf	0.45	25,889
	Sub Total - Direct Cost					25,889
	General Conditions		20.00%			5,178
	Overhead & Profit		23.00%			7,145
	Design & Price Reserve		15.00%			5,732
	Escalation	May-15	8.16%			3,586
	Bond		3.00%			1,426
	Soft Costs/Design Fees		30.00%			14,687
	Total Project Cost					63,643
81	Exterior Light Fixtures					$
	upgrade exterior light fixtures with LED fixtures	allowance	1	ls	11,310.00	11,310
	dispsoal	allowance	1	ls	1,950.00	1,950
	Sub Total - Direct Cost					13,260
	General Conditions		20.00%			2,652
	Overhead & Profit		23.00%			3,660
	Design & Price Reserve		15.00%			2,936
	Escalation	May-15	8.16%			1,837
	Bond		3.00%			730
	Soft Costs/Design Fees		30.00%			7,523
	Total Project Cost					32,598

	Description	Note	Quantity	Unit	Price	Total
5	Fire Alarm Devices					$
	replace fire alarm devices in Town Hall area		33,307	sf	2.83	94,259
	dispsoal		1	ls	4,712.95	4,713
	Sub Total - Direct Cost					98,972
	General Conditions		20.00%			19,794
	Overhead & Profit		23.00%			27,316
	Design & Price Reserve		15.00%			21,912
	Escalation	May-15	8.16%			13,708
	Bond		2.40%			4,361
	Soft Costs/Design Fees		30.00%			55,819
	Total Project Cost					241,882
8	Upgrade generator					$
	new generator - connect to existing ATS and select circuits		30	kw	981.14	29,434
	replace feeders	allowance	100	lf	158.16	15,816
	disposal generator and feeders		1	ea	2,262.50	2,263
	electrican labor - wiring as required		2	days	565.44	1,131
	Sub Total - Direct Cost					48,644
	General Conditions		20.00%			9,729
	Overhead & Profit		23.00%			13,426
	Design & Price Reserve		15.00%			10,770
	Escalation	May-15	8.16%			6,738
	Bond		3.00%			2,679
	Soft Costs/Design Fees		30.00%			27,596
	Total Project Cost					119,582
	Plumbing					
82	Replace Water Closets					$
	demo water closets	allowance	10	ea	69.62	696
	disposal	allowance	10	ea	20.88	209
	water closet	allowance	10	ea	2,591.82	25,918
	Sub Total - Direct Cost					26,823
	General Conditions		20.00%			5,365
	Overhead & Profit		23.00%			7,403
	Design & Price Reserve		15.00%			5,939
	Escalation	May-15	8.16%			3,715
	Bond		3.00%			1,477
	Soft Costs/Design Fees		30.00%			15,217
	Total Project Cost					65,939

	Description	Note	Quantity	Unit	Price	Total
83	Replace Urinals					$
	demo urinals	allowance	8	ea	69.62	557
	disposal	allowance	10	ea	20.88	209
	urinals	allowance	8	ea	1,451.21	11,610
	Sub Total - Direct Cost					12,376
	General Conditions		20.00%			2,475
	Overhead & Profit		23.00%			3,416
	Design & Price Reserve		15.00%			2,740
	Escalation	May-15	8.16%			1,714
	Bond		3.00%			682
	Soft Costs/Design Fees		30.00%			7,021
	Total Project Cost					30,424
9	Support Backflow Preventer					$
	support backflow preventer		1	ea	535.50	536
	Sub Total - Direct Cost					536
	General Conditions		20.00%			107
	Overhead & Profit		23.00%			148
	Design & Price Reserve		15.00%			119
	Escalation	May-15	8.16%			74
	Bond		3.00%			30
	Soft Costs/Design Fees		30.00%			304
	Total Project Cost					1,318

TOWN OF WAYLAND FACILITIES AUDIT
FIRE STATION
WAYLAND, MA 01778

GFA 6,092

COSTPRO, INC.

	Description	Note	Quantity	Unit	Price	Total
	Basic Quantities		GFA	Girth		
	level 1		6,092 sf	346 lf		
23	Door Hardware					$
	replace entrance door hardware		5	ea	1,573.50	7,868
	replace interior door hardware		18	ea	959.84	17,277
	Sub Total - Direct Cost					25,145
	General Conditions		20.00%			5,029
	Overhead & Profit		23.00%			6,940
	Design & Price Reserve		15.00%			5,567
	Escalation	May-15	8.16%			3,483
	Bond		3.00%			1,385
	Soft Costs/Design Fees		30.00%			14,265
	Total Project Cost					$61,814
27	Rear Vestibule					$
	remove doors		2	leaf	71.70	143
	disposal		1	ea	42.90	43
	Sub Total - Direct Cost					186
	General Conditions		20.00%			37
	Overhead & Profit		23.00%			51
	Design & Price Reserve		15.00%			41
	Escalation	May-15	8.16%			26
	Bond		3.00%			10
	Soft Costs/Design Fees		30.00%			105
	Total Project Cost					$456
37	Restrooms and Showers					$
	reconstruct restrooms and showers		224	sf	628.00	140,672
	Sub Total - Direct Cost					140,672
	General Conditions		20.00%			28,134
	Overhead & Profit		23.00%			38,825
	Design & Price Reserve		15.00%			31,145
	Escalation	May-15	8.16%			19,484
	Bond		2.40%			6,198
	Soft Costs/Design Fees		30.00%			79,337
	Total Project Cost					$343,795

TOWN OF WAYLAND FACILITIES AUDIT
FIRE STATION
WAYLAND, MA 01778

GFA 6,092

	Description	Note	Quantity	Unit	Price	Total
26	Reorganize Kitchen					$
	reorganize kitchen for ADA compliance	allowance	1	ea	15,000.00	15,000
						15,000
	Sub Total - Direct Cost					
			20.00%			3,000
	General Conditions		23.00%			4,140
	Overhead & Profit		15.00%			3,321
	Design & Price Reserve		8.16%			2,078
	Escalation	May-15	3.00%			826
	Bond		30.00%			8,510
	Soft Costs/Design Fees					
	Total Project Cost					$36,875
22	Modify Kitchen Cabinet For ADA Compliance					$
	modify cabinet for shallow sink space	allowance	1	ea	2,529.22	2,529
	Sub Total - Direct Cost					2,529
	General Conditions		20.00%			506
	Overhead & Profit		23.00%			698
	Design & Price Reserve		15.00%			560
	Escalation	May-15	8.16%			350
	Bond		3.00%			139
	Soft Costs/Design Fees		30.00%			1,435
	Total Project Cost					$6,217
66	Repair Vertical Crack In Boiler's Chimney					$
	repair crack	allowance	4	lf	99.30	397
	Sub Total - Direct Cost					397
	General Conditions		20.00%			79
	Overhead & Profit		23.00%			109
	Design & Price Reserve		15.00%			88
	Escalation	May-15	8.16%			55
	Bond		3.00%			22
	Soft Costs/Design Fees		30.00%			225
	Total Project Cost					$975

	Description	Note	Quantity	Unit	Price	Total
51	Re-point Areas Of Brickwork					$
	re-point areas of brickwork	allowance	50	sf	32.33	1,617
	Sub Total - Direct Cost					1,617
	General Conditions		20.00%			323
	Overhead & Profit		23.00%			446
	Design & Price Reserve		15.00%			358
	Escalation	May-15	8.16%			224
	Bond		3.00%			89
	Soft Costs/Design Fees		30.00%			917
	Total Project Cost					$3,974
56	Wood Trim And Cupola					$
	scrape, sand and paint trim and cupola	arch. allowance	1	ea	2,000.00	2,000
	Sub Total - Direct Cost					2,000
	General Conditions		20.00%			400
	Overhead & Profit		23.00%			552
	Design & Price Reserve		15.00%			443
	Escalation	May-15	8.16%			277
	Bond		3.00%			110
	Soft Costs/Design Fees		30.00%			1,135
	Total Project Cost					$4,917
54	Replace Entrance Aprons					$
	demo concrete apron at overhead doors		352	sf	19.86	6,991
	dumpster rental		1	weeks	725.60	726
	load & truck	10 mile round trip	20	cy	54.59	1,092
	dump charges		8	ton	86.04	688
	concrete apron at overhead doors	heavy duty	352	sf	13.90	4,893
	Sub Total - Direct Cost					14,390
	General Conditions		20.00%			2,878
	Overhead & Profit		23.00%			3,972
	Design & Price Reserve		15.00%			3,186
	Escalation	May-15	8.16%			1,993
	Bond		3.00%			793
	Soft Costs/Design Fees		30.00%			8,164
	Total Project Cost					$35,376

	Description	Note	Quantity	Unit	Price	Total
45	Inspect Septic System					$
	inspect septic system		1	ea	2,390.00	2,390
	Sub Total - Direct Cost					2,390
	General Conditions		20.00%			478
	Overhead & Profit		23.00%			660
	Design & Price Reserve		15.00%			529
	Escalation	May-15	8.16%			331
	Bond		3.00%			132
	Soft Costs/Design Fees		30.00%			1,356
	Total Project Cost					$5,876

Mechanical

15	Exhaust Ventilation In Restroom Off Day Room					$
	replace exhaust system with new system terminating thru wall or roof		102	sf	42.84	4,370
	Sub Total - Direct Cost					4,370
	General Conditions		20.00%			874
	Overhead & Profit		23.00%			1,206
	Design & Price Reserve		15.00%			968
	Escalation	May-15	8.16%			605
	Bond		3.00%			241
	Soft Costs/Design Fees		30.00%			2,479
	Total Project Cost					$10,743

14	Kiln Exhaust					$
	additional kiln exhaust system		1	ea	2,142.00	2,142
	Sub Total - Direct Cost					2,142
	General Conditions		20.00%			428
	Overhead & Profit		23.00%			591
	Design & Price Reserve		15.00%			474
	Escalation	May-15	8.16%			297
	Bond		3.00%			118
	Soft Costs/Design Fees		30.00%			1,215
	Total Project Cost					$5,265

	Description	Note		Quantity	Unit	Price	Total
86	Replace Thermostats						$
	replace thermostats - digital programmable			4	ea	267.75	1,071
	Sub Total - Direct Cost						1,071
	General Conditions			20.00%			214
	Overhead & Profit			23.00%			296
	Design & Price Reserve			15.00%			237
	Escalation		May-15	8.16%			148
	Bond			3.00%			59
	Soft Costs/Design Fees			30.00%			608
	Total Project Cost						$2,633
87	Upgrade Boiler						$
	remove boiler			1	ea	390.92	391
	disposal			1	ea	117.27	117
	condensing gas fired boiler	allowance		1	ea	16,065.00	16,065
	Sub Total - Direct Cost						16,573
	General Conditions			20.00%			3,315
	Overhead & Profit			23.00%			4,574
	Design & Price Reserve			15.00%			3,669
	Escalation		May-15	8.16%			2,295
	Bond			3.00%			913
	Soft Costs/Design Fees			30.00%			9,402
	Total Project Cost						$40,741
88	Air Conditioning						$
	add air conditioning to building			3,512	sf	42.84	150,454
	Sub Total - Direct Cost						150,454
	General Conditions			20.00%			30,091
	Overhead & Profit			23.00%			41,525
	Design & Price Reserve			15.00%			33,311
	Escalation		May-15	8.16%			20,839
	Bond			2.40%			6,629
	Soft Costs/Design Fees			30.00%			84,855
	Total Project Cost						$367,704

	Description	Note	Quantity	Unit	Price	Total
	Electrical					
80	Lighting And Controls					$
	upgrade lighting and controls in engine bay		2,021	sf	16.40	33,144
	Sub Total - Direct Cost					33,144
	General Conditions		20.00%			6,629
	Overhead & Profit		23.00%			9,148
	Design & Price Reserve		15.00%			7,338
	Escalation	May-15	8.16%			4,591
	Bond		3.00%			1,826
	Soft Costs/Design Fees		30.00%			18,803
	Total Project Cost					$81,479
89	Occupancy Sensors					$
	occupancy sensors throughout		25	ea	244.30	6,108
	cut and patch		1	ea	305.40	305
	Sub Total - Direct Cost					6,413
	General Conditions		20.00%			1,283
	Overhead & Profit		23.00%			1,770
	Design & Price Reserve		15.00%			1,420
	Escalation	May-15	8.16%			888
	Bond		3.00%			353
	Soft Costs/Design Fees		30.00%			3,638
	Total Project Cost					$15,765
81	Exterior Lighting					$
	update exterior lighting	allowance	1	ea	2,262.00	2,262
	disposal	allowance	1	ea	678.60	679
	additional exterior lighting	allowance	1	ea	3,393.00	3,393
	Sub Total - Direct Cost					6,334
	General Conditions		20.00%			1,267
	Overhead & Profit		23.00%			1,748
	Design & Price Reserve		15.00%			1,402
	Escalation	May-15	8.16%			877
	Bond		3.00%			349
	Soft Costs/Design Fees		30.00%			3,593
	Total Project Cost					$15,570

	Description	Note	Quantity	Unit	Price	Total
74	IT Dedicated Space					$
	IT Room 5x5 room and equipment/electrical	allowance	1	ea	11,070.00	11,070
	Sub Total - Direct Cost					11,070
	General Conditions		20.00%			2,214
	Overhead & Profit		23.00%			3,055
	Design & Price Reserve		15.00%			2,451
	Escalation	May-15	8.16%			1,533
	Bond		3.00%			610
	Soft Costs/Design Fees		30.00%			6,280
	Total Project Cost					$27,213

Plumbing

82	Upgrade All Plumbing Fixtures					$
	demo plumbing fixtures		14	ea	73.52	1,029
	disposal		14	ea	22.05	309
	new plumbing fixtures		14	ea	5,655.00	79,170
	Sub Total - Direct Cost					80,508
	General Conditions		20.00%			16,102
	Overhead & Profit		23.00%			22,220
	Design & Price Reserve		15.00%			17,825
	Escalation	May-15	8.16%			11,151
	Bond		2.40%			3,547
	Soft Costs/Design Fees		30.00%			45,406
	Total Project Cost					$196,759

TOWN OF WAYLAND FACILITIES AUDIT
LIBRARY
WAYLAND, MA 01778

GFA 16,050

Description	Note	Quantity	Unit	Price	Total
Basic Quantities	GFA		Girth		
basement	7,067 sf		399 lf		
level 1	6,854 sf		396 lf		
level 2	2,129 sf		351 lf		
General					
17 Entrance Door					$
automatic door opener		1	ea	3,675.75	3,676
wire and conduit		100	lf	7.83	783
cut and patch		1	ls	223.00	223
Sub Total - Direct Cost					4,682
General Conditions		20.00%			936
Overhead & Profit		23.00%			1,292
Design & Price Reserve		15.00%			1,037
Escalation	May-15	8.16%			648
Bond		3.00%			258
Soft Costs/Design Fees		30.00%			2,656
Total Project Cost					$11,509
Front Step Replacement					$
demo existing granite steps	allowance	119	lfr	14.34	1,706
demo concrete walk 4x20	allowance	80	sf	1.56	125
disposal		1	ea	549.30	549
new granite steps	allowance	429	cf	202.98	87,078
fine grading	allowance	80	sf	1.26	101
new concrete walk	allowance	80	sf	7.00	560
guardrails	allowance	40	lf	182.70	7,308
Sub Total - Direct Cost					97,427
General Conditions		20.00%			19,485
Overhead & Profit		23.00%			26,890
Design & Price Reserve		15.00%			21,570
Escalation	May-15	8.16%			13,494
Bond		2.40%			4,293
Soft Costs/Design Fees		30.00%			54,948
Total Project Cost					$238,107

	Description	Note	Quantity	Unit	Price	Total
41	Elevator Signage					$
	floor designations on each floor		3	ea	119.03	357
	Sub Total - Direct Cost					357
	General Conditions		20.00%			71
	Overhead & Profit		23.00%			98
	Design & Price Reserve		15.00%			79
	Escalation	May-15	8.16%			49
	Bond		3.00%			20
	Soft Costs/Design Fees		30.00%			202
	Total Project Cost					$876
33	Guardrail On Stair					$
	add guardrail on main stair		25	lf	182.70	4,568
	Sub Total - Direct Cost					4,568
	General Conditions		20.00%			914
	Overhead & Profit		23.00%			1,261
	Design & Price Reserve		15.00%			1,011
	Escalation	May-15	8.16%			633
	Bond		3.00%			252
	Soft Costs/Design Fees		30.00%			2,592
	Total Project Cost					$11,231
33	Handrail On Main Stair					$
	remove handrail		38	lf	4.78	182
	disposal		1	ea	54.60	55
	new handrail		38	lf	182.70	6,943
	Sub Total - Direct Cost					7,180
	General Conditions		20.00%			1,436
	Overhead & Profit		23.00%			1,982
	Design & Price Reserve		15.00%			1,590
	Escalation	May-15	8.16%			995
	Bond		3.00%			395
	Soft Costs/Design Fees		30.00%			4,073
	Total Project Cost					$17,651

TOWN OF WAYLAND FACILITIES AUDIT
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GFA 16,050

	Description	Note	Quantity	Unit	Price	Total
42	Bathroom Specialties					$
	grab bar		1	ea	300.94	301
	relocate toilet paper holder		1	ea	461.44	461
	Sub Total - Direct Cost					762
	General Conditions		20.00%			152
	Overhead & Profit		23.00%			210
	Design & Price Reserve		15.00%			169
	Escalation	May-15	8.16%			106
	Bond		3.00%			42
	Soft Costs/Design Fees		30.00%			432
	Total Project Cost					$1,873
31	Circulation Desk					$
	modify circulation desk for lower counter and knee space		1	ea	2,529.22	2,529
	Sub Total - Direct Cost					2,529
	General Conditions		20.00%			506
	Overhead & Profit		23.00%			698
	Design & Price Reserve		15.00%			560
	Escalation	May-15	8.16%			350
	Bond		3.00%			139
	Soft Costs/Design Fees		30.00%			1,435
	Total Project Cost					$6,217
34	Signage					$
	new interior signage ADA compliant		16,050	ea	0.26	4,173
	Sub Total - Direct Cost					4,173
	General Conditions		20.00%			835
	Overhead & Profit		23.00%			1,152
	Design & Price Reserve		15.00%			924
	Escalation	May-15	8.16%			578
	Bond		3.00%			230
	Soft Costs/Design Fees		30.00%			2,368
	Total Project Cost					$10,260

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GFA 16,050

	Description	Note		Quantity	Unit	Price	Total
32	Furniture Reorganization						$
	reorganize furniture to increase wheel chair maneuv	labor allowance		2	day	426.41	853
	Sub Total - Direct Cost						853
	General Conditions			20.00%			171
	Overhead & Profit			23.00%			236
	Design & Price Reserve			15.00%			189
	Escalation		May-15	8.16%			118
	Bond			3.00%			47
	Soft Costs/Design Fees			30.00%			484
	Total Project Cost						$2,098
43	Reposition Library Stacks						$
	reposition stacks	laborer		10	days	426.41	4,264
	Sub Total - Direct Cost						4,264
	General Conditions			20.00%			853
	Overhead & Profit			23.00%			1,177
	Design & Price Reserve			15.00%			944
	Escalation		May-15	8.16%			591
	Bond			3.00%			235
	Soft Costs/Design Fees			30.00%			2,419
	Total Project Cost						$10,483
39	Handrail Extensions						$
	add handrail extensions at entrance stair			4	ea	256.06	1,024
	Sub Total - Direct Cost						1,024
	General Conditions			20.00%			205
	Overhead & Profit			23.00%			283
	Design & Price Reserve			15.00%			227
	Escalation		May-15	8.16%			142
	Bond			3.00%			56
	Soft Costs/Design Fees			30.00%			581
	Total Project Cost						$2,518

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GFA 16,050

	Description	Note		Quantity	Unit	Price	Total
2	Enclose Main Stair						$
	partition			40	sf	14.84	594
	hm door, frame, hardware, paint			1	leaf	1,885.05	1,885
	cut and patch			1	ls	245.80	246
	Sub Total - Direct Cost						2,725
	General Conditions			20.00%			545
	Overhead & Profit			23.00%			752
	Design & Price Reserve			15.00%			603
	Escalation		May-15	8.16%			377
	Bond			3.00%			150
	Soft Costs/Design Fees			30.00%			1,546
	Total Project Cost						$6,698
1	Lower Level Short Door						$
	demo opening for 3x6'8" door			21	sf	14.34	301
	disposal			1	ea	86.33	86
	hm door insulated, frame, hardware, paint			1	leaf	1,885.05	1,885
	concrete landing - exterior	on grade		100	sf	9.65	965
	extend existing corridor towards Children's Room	allowance		1	ls	2,214.00	2,214
	corridor MEP allowance	allowance		1	ls	3,321.00	3,321
	Sub Total - Direct Cost						8,772
	General Conditions			20.00%			1,754
	Overhead & Profit			23.00%			2,421
	Design & Price Reserve			15.00%			1,942
	Escalation		May-15	8.16%			1,215
	Bond			3.00%			483
	Soft Costs/Design Fees			30.00%			4,976
	Total Project Cost						$21,563
57	Downspout Water						$
	pipe downspouts away from building	allowance - 8 loc		80	lf	36.58	2,926
	Sub Total - Direct Cost						2,926
	General Conditions			20.00%			585
	Overhead & Profit			23.00%			808
	Design & Price Reserve			15.00%			648
	Escalation		May-15	8.16%			405
	Bond			3.00%			161
	Soft Costs/Design Fees			30.00%			1,660
	Total Project Cost						$7,193

TOWN OF WAYLAND FACILITIES AUDIT
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GFA 16,050

	Description	Note		Quantity	Unit	Price	Total
60	Remove Ivy						$
	remove Ivy from exterior of building			1,152	sf	3.35	3,859
	Sub Total - Direct Cost						3,859
	General Conditions			20.00%			772
	Overhead & Profit			23.00%			1,065
	Design & Price Reserve			15.00%			854
	Escalation		May-15	8.16%			534
	Bond			3.00%			213
	Soft Costs/Design Fees			30.00%			2,189
	Total Project Cost						$9,486
10	Exit Door						$
	demo high granite step			4	lf	14.34	57
	handicapped accessible landing and switch-back ramp			1	ea	36,534.84	36,535
	Sub Total - Direct Cost						36,592
	General Conditions			20.00%			7,318
	Overhead & Profit			23.00%			10,099
	Design & Price Reserve			15.00%			8,101
	Escalation		May-15	8.16%			5,068
	Bond			3.00%			2,015
	Soft Costs/Design Fees			30.00%			20,758
	Total Project Cost						$89,951
64	Clean Exterior Granite						$
	clean all exterior granite	allowance		8,964	sf	2.39	21,424
	Sub Total - Direct Cost						21,424
	General Conditions			20.00%			4,285
	Overhead & Profit			23.00%			5,913
	Design & Price Reserve			15.00%			4,743
	Escalation		May-15	8.16%			2,967
	Bond			3.00%			1,180
	Soft Costs/Design Fees			30.00%			12,154
	Total Project Cost						$52,666

	Description	Note	Quantity	Unit	Price	Total
48	Wood Window Sills					$
	scrape, fill, paint sills	allowance	272	lf	18.44	5,016
	Sub Total - Direct Cost					5,016
	General Conditions		20.00%			1,003
	Overhead & Profit		23.00%			1,384
	Design & Price Reserve		15.00%			1,110
	Escalation	May-15	8.16%			695
	Bond		3.00%			276
	Soft Costs/Design Fees		30.00%			2,845
	Total Project Cost					$12,329
61	Metal Railing On Retaining Wall					$
	scrape and paint ornamental guardrail on top of wall		60	lf	22.74	1,364
	Sub Total - Direct Cost					1,364
	General Conditions		20.00%			273
	Overhead & Profit		23.00%			377
	Design & Price Reserve		15.00%			302
	Escalation	May-15	8.16%			189
	Bond		3.00%			75
	Soft Costs/Design Fees		30.00%			774
	Total Project Cost					$3,354
	Mechanical					
90	Equipment Replacement					$
	replace boiler, pumps, air handler, and condensing units in 5-10 yr		16,050	sf	21.77	349,409
	power to mechanical equipment		16,050	sf	1.07	17,174
	Sub Total - Direct Cost					366,583
	General Conditions		16.00%			58,653
	Overhead & Profit		18.00%			76,542
	Design & Price Reserve		15.00%			75,267
	Escalation	May-18	21.68%			125,103
	Bond		2.40%			16,852
	Soft Costs/Design Fees		30.00%			215,700
	Total Project Cost					934,700

	Description	Note	Quantity	Unit	Price	Total
76	Replace Controls And Reconfigure System					$
	replace controls with DDC and reconfigure system for AHU		16,050	sf	3.75	60,188
	disposal		16,050	sf	0.37	5,939
	Sub Total - Direct Cost					66,127
	General Conditions		20.00%			13,225
	Overhead & Profit		23.00%			18,251
	Design & Price Reserve		15.00%			14,640
	Escalation	May-15	8.16%			9,159
	Bond		2.40%			2,914
	Soft Costs/Design Fees		30.00%			37,295
	Total Project Cost					$161,611
91	Air Conditioning Control At Meeting Room (A)					$
	modify existing AHU to provide proper ventilation		1	ea	13,387.50	13,388
	ductless split system air conditioner		1	ea	3,748.50	3,749
	Sub Total - Direct Cost					17,137
	General Conditions		20.00%			3,427
	Overhead & Profit		23.00%			4,730
	Design & Price Reserve		15.00%			3,794
	Escalation	May-15	8.16%			2,374
	Bond		3.00%			944
	Soft Costs/Design Fees		30.00%			9,722
	Total Project Cost					$42,128
79	Reconfigure Central Pumping Plant					$
	reconfigure central pumping plant for primary/secondary pumping	allowance	1	ea	21,420.00	21,420
	Sub Total - Direct Cost					21,420
	General Conditions		20.00%			4,284
	Overhead & Profit		23.00%			5,912
	Design & Price Reserve		15.00%			4,742
	Escalation	May-15	8.16%			2,967
	Bond		3.00%			1,180
	Soft Costs/Design Fees		30.00%			12,152
	Total Project Cost					$52,657

	Description	Note	Quantity	Unit	Price	Total
12	Attic AHU Access					$
	provide safer/easier access to unit	allowance	1	ea	2,214.00	2,214
	Sub Total - Direct Cost					2,214
	General Conditions		20.00%			443
	Overhead & Profit		23.00%			611
	Design & Price Reserve		15.00%			490
	Escalation	May-15	8.16%			307
	Bond		3.00%			122
	Soft Costs/Design Fees		30.00%			1,256
	Total Project Cost					$5,443
	Electrical					
89	Automatic Lighting Controls					$
	automatic lighting controls throughout		16,050	sf	0.45	7,223
	Sub Total - Direct Cost					7,223
	General Conditions		20.00%			1,445
	Overhead & Profit		23.00%			1,994
	Design & Price Reserve		15.00%			1,599
	Escalation	May-15	8.16%			1,000
	Bond		3.00%			398
	Soft Costs/Design Fees		30.00%			4,098
	Total Project Cost					$17,757
5	Upgrade Fire Alarm System					$
	upgrade fire alarm system		16,050	sf	2.71	43,496
	Sub Total - Direct Cost					43,496
	General Conditions		20.00%			8,699
	Overhead & Profit		23.00%			12,005
	Design & Price Reserve		15.00%			9,630
	Escalation	May-15	8.16%			6,025
	Bond		3.00%			2,396
	Soft Costs/Design Fees		30.00%			24,675
	Total Project Cost					$106,926

	Description	Note		Quantity	Unit	Price	Total
81	Upgrade Exterior Lighting						$
	upgrade existing exterior lighting to LED			1	ea	2,262.00	2,262
	disposal			1	ea	767.50	768
	Sub Total - Direct Cost						3,030
	General Conditions			20.00%			606
	Overhead & Profit			23.00%			836
	Design & Price Reserve			15.00%			671
	Escalation		May-15	8.16%			420
	Bond			3.00%			167
	Soft Costs/Design Fees			30.00%			1,719
	Total Project Cost						$7,449
4	Supplement Emergency Lighting						$
	add to emergency lighting as necessary			16,050	sf	0.57	9,149
	Sub Total - Direct Cost						9,149
	General Conditions			20.00%			1,830
	Overhead & Profit			23.00%			2,525
	Design & Price Reserve			15.00%			2,026
	Escalation		May-15	8.16%			1,267
	Bond			3.00%			504
	Soft Costs/Design Fees			30.00%			5,190
	Total Project Cost						$22,491
3	Supplement Existing Exit Signs						$
	exit signs	allowance		8	ea	177.57	1,421
	Sub Total - Direct Cost						1,421
	General Conditions			20.00%			284
	Overhead & Profit			23.00%			392
	Design & Price Reserve			15.00%			315
	Escalation		May-15	8.16%			197
	Bond			3.00%			78
	Soft Costs/Design Fees			30.00%			806
	Total Project Cost						$3,493
75	Replace Light Fixture Lenses						$
	replace light fixture lenses in story telling area			1,964	sf	1.41	2,769
	disposal			1	ea	276.90	277
	Sub Total - Direct Cost						3,046
	General Conditions			20.00%			609
	Overhead & Profit			23.00%			841
	Design & Price Reserve			15.00%			674
	Escalation		May-15	8.16%			422
	Bond			3.00%			168
	Soft Costs/Design Fees			30.00%			1,728
	Total Project Cost						$7,488

TOWN OF WAYLAND FACILITIES AUDIT
OPTIONS LIST
WAYLAND, MA 01778

Description	Note		Quantity	Unit	Price	Total
OPTION 1:						$
Library & Council On Aging In New Building - Cost Plan			42,997	sf	291.66	12,540,436
Renovation of Existing Town Hall - Detail			19,953	sf	67.68	1,350,322
Expand Town Hall Departments						
Expand IT Department						
Art Center To Meeting Room						
Renovation of Library For School Department - Detail			8,212	sf	68.8	564,980
Fire House Renovation			6,092	sf	90.79	553,119
Sub Total - Direct Cost						15,008,857
General Conditions			6.50%			975,576
Overhead & Profit			8.50%			1,358,677
Design & Price Reserve			15.00%			2,601,467
Escalation		Jan-15	7.20%			1,436,010
Bond			1.34%			286,500
Soft Costs/Design Fees			30.00%			6,500,126
Total Project Cost						$28,167,213
OPTION 1B:						$
Library & Council On Aging In New Building - Cost Plan			42,997	sf	291.66	12,540,436
Renovation of Existing Town Hall			19,953	sf	67.68	1,350,322
Expand Town Hall Departments						
Expand IT Department - restricted						
Art Center To Meeting Room						
Mothball Library	allowance		16,050	sf	3.50	56,175
Fire House Renovation			6,092	sf	90.79	553,119
Sub Total - Direct Cost						14,500,052
General Conditions			6.50%			942,503
Overhead & Profit			8.50%			1,312,617
Design & Price Reserve			15.00%			2,513,276
Escalation		Jan-15	7.20%			1,387,328
Bond			1.34%			276,787
Soft Costs/Design Fees			30.00%			6,279,769
Total Project Cost						$27,212,332

TOWN OF WAYLAND FACILITIES AUDIT
OPTIONS LIST
WAYLAND, MA 01778

Description	Note	Quantity	Unit	Price	Total
OPTION 2:					$
Council On Aging In New Building - Cost Plan		17,017	sf	317.95	5,410,501
Renovation of Existing Town Hall		19,953	sf	67.68	1,350,322
Expand Town Hall Departments					
Art Center To Meeting Room					
Fire House Renovation		6,092	sf	90.79	553,119
No Library Work					
Sub Total - Direct Cost					7,313,942
General Conditions		7.00%			511,976
Overhead & Profit		9.00%			704,333
Design & Price Reserve		15.00%			1,279,538
Escalation	Jan-15	7.20%			706,305
Bond		1.34%			140,916
Soft Costs/Design Fees		30.00%			3,197,103
Total Project Cost					13,854,113
OPTION 2B:					$
Council On Aging In New Building - Cost Plan		17,017	sf	317.95	5,410,501
Add To Building for Art Center		2,000	sf	235.00	470,000
Renovation of Existing Town Hall		19,953	sf	67.68	1,350,322
Expand Town Hall Departments					
Fire House Renovation		6,092	sf	90.79	553,119
No Library Work					
Sub Total - Direct Cost					7,783,942
General Conditions		7.00%			544,876
Overhead & Profit		9.00%			749,594
Design & Price Reserve		15.00%			1,361,762
Escalation	Jan-15	7.20%			751,693
Bond		1.34%			149,971
Soft Costs/Design Fees		30.00%			3,402,551
Total Project Cost					14,744,389

TOWN OF WAYLAND FACILITIES AUDIT
OPTIONS LIST
WAYLAND, MA 01778

Description	Note	Quantity	Unit	Price	Total
OPTION 3:					$
Library In New Building - Cost Plan		26,327	sf	281.91	7,421,889
Renovation of Existing Library		8,212	sf	68.8	564,980
School Department To Move To 1st Floor Library					
No update to parking					
Town Hall Addition		14,278	sf	335.77	4,794,195
Expand Council On Aging To 1 Story Addition					
Renovation of Existing Town Hall		19,953	sf	67.68	1,350,322
Renovate School Department For Council On Aging					
Town Department Extends To Existing COA					
Art Center To Meeting Room					
Fire House Renovation		6,092	sf	90.79	553,119
Sub Total - Direct Cost					14,684,505
General Conditions		6.50%			954,493
Overhead & Profit		8.50%			1,329,315
Design & Price Reserve		15.00%			2,545,247
Escalation	Jan-15	7.20%			1,404,976
Bond		1.34%			280,308
Soft Costs/Design Fees		30.00%			6,359,653
Total Project Cost					27,558,497
OPTION 3B:					$
Library In New Building - Cost Plan		26,327	sf	281.91	7,421,889
Add To Building for Art Center		2,000	sf	235.00	470,000
Renovation of Existing Library		8,212	sf	68.8	564,980
School Department To Move To 1st Floor Library					
No update to parking					
Town Hall Addition		14,278	sf	335.77	4,794,195
Expand Council On Aging To 1 Story Addition					
Renovation of Existing Town Hall		19,953	sf	67.68	1,350,322
Renovate School Department For Council On Aging					
Town Department Extends To Existing COA					
Fire House Renovation		6,092	sf	90.79	553,119
Sub Total - Direct Cost					15,154,505
General Conditions		6.50%			985,043
Overhead & Profit		8.50%			1,371,862
Design & Price Reserve		15.00%			2,626,712
Escalation	Jan-15	7.20%			1,449,945
Bond		1.34%			289,280
Soft Costs/Design Fees		30.00%			6,563,204
Total Project Cost					28,440,551

TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL RENOVATION - OPTIONS 1, 1 B, 2, 2B, 3, 3B & 5
WAYLAND, MA 01778 GFA 35,819

Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
basement		2,254 sf		249 lf	
level 1		33,565 sf		1,296 lf	
level 2		21,713 sf		1,296 lf	
Option 1 Component: Expand Town Hall Departments, Expand IT, Art Center Moved To Meeting Room					
1st Floor					$
demo doors		41	ea	47.37	1,942
demo old ramp		161	sf	4.78	770
demo service counter		14	lf	9.13	128
demo walls	13'	802	lf	2.52	2,021
demo floors - carpet		10,704	sf	0.43	4,603
demo ceilings - 2x2 act		10,704	sf	0.72	7,707
misc demo - kitchen, furnishings, equipment	allowance	10,704	sf	0.96	10,276
new doors, 3x7, wood, particle core, mtl frm wld, ptd, hrdwr		22	ea	1,338.04	29,437
new ramp		161	sf	72.05	11,600
new walls, 3 5/8" stud, 5/8" gyp each side, 3 5/8" batt		4,652	sf	9.58	44,566
painting - new and old in renovated area		10,704	sf	2.84	30,399
new floors - carpet		10,704	sf	4.87	52,128
new ceilings - 2x4 act		10,704	sf	4.02	43,030
soffit allowance		200	lf	59.35	11,870
furnishings and equipment		10,704	sf	2.59	27,723
hvac - rework and modifications		10,704	sf	16.07	172,013
electrical - new power, lighting, fire alarm		10,704	sf	25.45	272,417
2nd Floor					
demo doors		24	ea	47.37	1,137
demo walls		648	lf	2.52	1,633
demo floors - carpet		9,249	sf	0.43	3,977
demo ceilings - 2x2 act		9,249	sf	0.72	6,659
misc demo - kitchen, furnishings, equipment		9,249	sf	0.96	8,879
new doors, 3x7, wood, particle core, mtl frm wld, ptd, hrdwr		11	ea	1,338.04	14,718
new walls, 3 5/8" stud, 5/8" gyp each side, 3 5/8" batt		5,559	sf	9.58	53,255
painting - new and old in renovated area		9,249	sf	2.84	26,267
new floors - carpet		9,249	sf	4.87	45,043
new ceilings - 2x4 act		9,249	sf	4.02	37,181
soffit allowance		100	lf	59.35	5,935
furnishings and equipment		9,249	lf	2.59	23,955
hvac - rework and modifications		9,249	sf	16.07	148,631
electrical - new power and lighting		9,249	sf	25.45	235,387
dumpster rental		6	weeks	725.60	4,354
load & truck	10 mile round trip	120	cy	54.59	6,551
dump charges		48	ton	86.04	4,130
Sub Total - Direct Cost					1,350,322

TOWN OF WAYLAND FACILITIES AUDIT
FIRE STATION #2 RENOVATION
WAYLAND, MA 01778 GFA 6,092

Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
level 1		6,092	sf	346	lf
Option - Fire Station Renovation					
1st Floor					$
demo doors		9	ea	47.37	426
demo walls		221	lf	2.52	557
demo floors - carpet		2,514	sf	0.43	1,081
demo ceilings - 2x2 act		2,514	sf	0.72	1,810
demo kitchen equipment		4	ea	239.00	956
demo plumbing fixtures		12	ea	66.44	797
demo storage room - from exterior		138	sf	10.00	1,380
new doors, 3x7, wood, particle core, mtl frm wld, ptd, hrdwr		14	ea	1,338.04	18,733
new overhead door - steel, electric	14x14	1	ea	6,687.38	6,687
new walls, 3 5/8" stud, 5/8" gyp each side, 3 5/8" batt		4,652	lf	9.58	44,566
painting - new and old in renovated area		2,514	sf	2.84	7,140
brick veneer		224	sf	46.34	10,380
new foundation for brick - 2' wide footing w/ 4' wall		16	lf	128.08	2,049
reinforce exterior wall for exterior wall	allowance	213	lf	33.10	7,050
tubular steel H frame at overhead door opening		40	lf	131.01	5,240
new floors - carpet		2,514	sf	4.87	12,243
new ceilings - 2x4 act		2,514	sf	4.02	10,106
soffit allowance		100	lf	59.35	5,935
furnishings and equipment		2,514	sf	2.59	6,511
new roof beams, columns, footings as required for new plan - allowanc		6,092	sf	40.00	243,680
plumbing - new fixtures		11	ea	5,355.00	58,905
hvac - rework and modifications		2,514	sf	16.07	40,400
electrical - new power, lighting, fire alarm		2,514	sf	25.45	63,981
dumpster rental		1	weeks	725.60	726
load & truck	10 mile round trip	20	cy	54.59	1,092
dump charges		8	ton	86.04	688
Sub Total - Direct Cost					553,119

TOWN OF WAYLAND FACILITIES AUDIT
SCHOOL DEPARTMENT IN LIRBARY BUILDING - OPTIONS 3 & 4
WAYLAND, MA 01778 GFA 16,050

Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
basement		7,067 sf	399 lf		
level 1		6,854 sf	396 lf		
level 2		2,129 sf	351 lf		
Option 3 &4 - School Department In Library Building					
Ground Floor					$
new doors, 3x7, wood, particle core, mtl frm wld, ptd, hrdwr		2	ea	1,338.04	2,676
new walls, 3 5/8" stud, 5/8" gyp each side, 3 5/8" batt		1,640	sf	9.58	15,711
painting		2,654	sf	2.84	7,537
demo floors - carpet		2,654	sf	0.43	1,141
demo ceilings - 2x2 act		2,654	sf	0.72	1,911
new floors - carpet		2,654	sf	4.87	12,925
new ceilings - 2x4 act		2,654	sf	4.02	10,669
soffit allowance		100	lf	59.35	5,935
furnishings and equipment		2,654	sf	2.59	6,874
hvac - rework and modifications		2,654	sf	16.07	42,650
electrical - new power and lighting		2,654	sf	25.45	67,544
1st Floor					$
new doors, 3x7, wood, particle core, mtl frm wld, ptd, hrdwr		12	ea	1,338.04	16,056
new walls, 3 5/8" stud, 5/8" gyp each side, 3 5/8" batt		4,146	lf	9.58	39,719
painting		5,558	sf	2.84	15,785
demo floors - carpet		5,558	sf	0.43	2,390
demo ceilings - 2x2 act		5,558	sf	0.72	4,002
new floors - carpet		5,558	sf	4.87	27,067
new ceilings - 2x4 act		5,558	sf	4.02	22,343
soffit allowance		200	lf	59.35	11,870
furnishings and equipment		5,558	sf	2.59	14,395
hvac - rework and modifications		5,558	sf	16.07	89,317
electrical - new power and lighting		5,558	sf	25.45	141,451
dumpster rental		2	weeks	725.60	1,451
load & truck	10 mile round trip	40	cy	54.59	2,184
dump charges		16	ton	86.04	1,377
Sub Total - Direct Cost					564,980

COSTPRO INC.
TOWN OF WAYLAND FACILITIES AUDIT
NEW LIBRARY & COUNCIL ON AGING ON NEW TOWN SITE - OPTION 1
WAYLAND, MA 01778

Project Cost Plan (Uniformat II Level 3)

COSTPRO, INC.

Project: New Addition Component		GFA(SF):	42,997	Date:	Apr-13		Sheet No: 1 OF 2		
Uniformat Element (Levels 2&3)		Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
A	SUBSTRUCTURE		1,106,743		25.74	8.8%			
	A10 Foundations	1,048,267		24.38			42,997	SF	24.38
	A20 Basement Construction	58,476		1.36			42,997	SF	1.36
B	SHELL		3,923,833		91.26	31.3%			
	B10 Superstructure	1,872,089		43.54			42,997	SF	43.54
	B20 Exterior Closure	1,584,585		36.85			23,072	SF	68.68
	B30 Roofing	467,159		10.86			24,268	SF	19.25
C	INTERIORS		2,004,804		46.63	16.0%			
	C10 Interior Construction	1,089,114		25.33			42,997	SF	25.33
	C20 Stairs	196,350		4.57			3	FLT	65450.00
	C30 Interior Finishes	719,340		16.73			42,997	SF	16.73
D	SERVICES		3,408,092		79.26	27.2%			
	D10 Conveying Systems	130,000		3.02			4	STOPS	32500.00
	D20 Plumbing	408,472		9.50			42,997	SF	9.50
	D30 HVAC	1,719,880		40.00			42,997	SF	40.00
	D40 Fire Protection	193,487		4.50			42,997	SF	4.50
	D50 Electrical Systems	956,253		22.24			42,997	SF	22.24
E	EQUIPMENT & FURNISHINGS		1,333,767		31.02	10.6%			
	E10 Equipment	1,120,932		26.07			42,997	SF	26.07
	E20 Furnishings	212,835		4.95			42,997	SF	4.95

COSTPRO INC.

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component				Date: Apr-13		Sheet No: 2 OF 2		
Uniformat Element (Levels 2&3)	Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
F SPECIAL CONSTRUCTION & DEMOLITION		0		0.00	0.0%			
F10 Special Construction	0		0.00			0	SF	0.00
F20 Selective Demolition	0		0.00			0	SF	2.95
G BUILDING SITEWORK		763,197		17.75	6.1%			
G10 Site Preparation	85,994		2.00			42,997	SF	2.00
G20 Site Improvements	322,478		7.50			42,997	SF	7.50
G30 Site Civil/Mechanical Utilities	257,982		6.00			42,997	SF	6.00
G40 Site Electrical Utilities	96,743		2.25			42,997	SF	2.25
G90 Other Site Construction	0		0.00			42,997	SF	0.00
SUBTOTAL		12,540,436		291.66	100.0%			
Z10 GENERAL REQUIREMENTS	0.0%	0		0.00				
Z20 CONTINGENCIES	0.0%	0		0.00				
Z30 CM AT RISK PREMIUM	0.0%	0		0.00				
Z90 PROJECT COST ESTIMATE	$	12,540,436	$	291.66				

COSTPRO INC.
TOWN OF WAYLAND FACILITIES AUDIT
COUNCIL ON AGING IN NEW BUILDING - OPTION 2
WAYLAND, MA 01778

Project Cost Plan (Uniformat II Level 3)

COSTPRO, INC.

Project: New Addition Component		GFA(SF):	17,017	Date:	Apr-13		Sheet No: 1 OF 2		
Uniformat Element (Levels 2&3)		Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
A	SUBSTRUCTURE		438,017		25.74	8.1%			
	A10 Foundations	414,874		24.38			17,017	SF	24.38
	A20 Basement Construction	23,143		1.36			17,017	SF	1.36
B	SHELL		1,696,370		99.69	31.4%			
	B10 Superstructure	740,920		43.54			17,017	SF	43.54
	B20 Exterior Closure	627,873		36.90			9,142	SF	68.68
	B30 Roofing	327,577		19.25			17,017	SF	19.25
C	INTERIORS		715,735		42.06	13.2%			
	C10 Interior Construction	431,041		25.33			17,017	SF	25.33
	C20 Stairs	0		0.00			0	FLT	65450.00
	C30 Interior Finishes	284,694		16.73			17,017	SF	16.73
D	SERVICES		1,297,377		76.24	24.0%			
	D10 Conveying Systems	0		0.00			0	EA	32500.00
	D20 Plumbing	161,662		9.50			17,017	SF	9.50
	D30 HVAC	680,680		40.00			17,017	SF	40.00
	D40 Fire Protection	76,577		4.50			17,017	SF	4.50
	D50 Electrical Systems	378,458		22.24			17,017	SF	22.24
E	EQUIPMENT & FURNISHINGS		527,867		31.02	9.8%			
	E10 Equipment	443,633		26.07			17,017	SF	26.07
	E20 Furnishings	84,234		4.95			17,017	SF	4.95

COSTPRO INC.

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component				Date: Apr-13		Sheet No: 2 OF 2		
Uniformat Element (Levels 2&3)	Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
F SPECIAL CONSTRUCTION & DEMOLITION		0		0.00	0.0%			
F10 Special Construction	0		0.00			0	SF	0.00
F20 Selective Demolition	0		0.00			0	SF	2.95
G BUILDING SITEWORK		735,135		43.20	13.6%			
G10 Site Preparation	85,085		5.00			17,017	SF	5.00
G20 Site Improvements	297,798		17.50			17,017	SF	17.50
G30 Site Civil/Mechanical Utilities	255,255		15.00			17,017	SF	15.00
G40 Site Electrical Utilities	96,997		5.70			17,017	SF	5.70
G90 Other Site Construction	0		0.00			17,017	SF	0.00
SUBTOTAL		5,410,501		317.95	100.0%			
Z10 GENERAL REQUIREMENTS	0.0%	0		0.00				
Z20 CONTINGENCIES	0.0%	0		0.00				
Z30 CM AT RISK PREMIUM	0.0%	0		0.00				
Z90 PROJECT COST ESTIMATE	$	5,410,501	$	317.95				

COSTPRO INC.
TOWN OF WAYLAND FACILITIES AUDIT
LIBRARY IN NEW BUILDING - OPTION 3
WAYLAND, MA 01778

Project Cost Plan (Uniformat II Level 3)

COSTPRO, INC.

Project: New Addition Component		GFA(SF):	26,327	Date:	Apr-13		Sheet No: 1 OF 2		
Uniformat Element (Levels 2&3)		Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
A	SUBSTRUCTURE		677,657		25.74	9.1%			
	A10 Foundations	641,852		24.38			26,327	SF	24.38
	A20 Basement Construction	35,805		1.36			26,327	SF	1.36
B	SHELL		2,416,939		91.80	32.6%			
	B10 Superstructure	1,146,278		43.54			26,327	SF	43.54
	B20 Exterior Closure	1,013,442		38.49			14,756	SF	68.68
	B30 Roofing	257,219		9.77			13,362	SF	19.25
C	INTERIORS		1,284,972		48.81	17.3%			
	C10 Interior Construction	648,171		24.62			26,327	SF	24.62
	C20 Stairs	196,350		7.46			3	FLT	65450.00
	C30 Interior Finishes	440,451		16.73			26,327	SF	16.73
D	SERVICES		2,072,171		78.71	27.9%			
	D10 Conveying Systems	65,000		2.47			2	STOPS	32500.00
	D20 Plumbing	250,107		9.50			26,327	SF	9.50
	D30 HVAC	1,053,080		40.00			26,327	SF	40.00
	D40 Fire Protection	118,472		4.50			26,327	SF	4.50
	D50 Electrical Systems	585,512		22.24			26,327	SF	22.24
E	EQUIPMENT & FURNISHINGS		263,270		10.00	3.5%			
	E10 Equipment	132,951		5.05			26,327	SF	5.05
	E20 Furnishings	130,319		4.95			26,327	SF	4.95

COSTPRO INC.

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component				Date: Apr-13		Sheet No: 2 OF 2		
Uniformat Element (Levels 2&3)	Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
F SPECIAL CONSTRUCTION & DEMOLITION		0		0.00	0.0%			
F10 Special Construction	0		0.00			0	SF	0.00
F20 Selective Demolition	0		0.00			0	SF	0.00
G BUILDING SITEWORK		706,880		26.85	9.5%			
G10 Site Preparation	85,563		3.25			26,327	SF	3.25
G20 Site Improvements	265,903		10.10			26,327	SF	10.10
G30 Site Civil/Mechanical Utilities	256,688		9.75			26,327	SF	9.75
G40 Site Electrical Utilities	98,726		3.75			26,327	SF	3.75
G90 Other Site Construction	0		0.00			26,327	SF	0.00
SUBTOTAL		7,421,889		281.91	100.0%			
Z10 GENERAL REQUIREMENTS	0.0%	0		0.00				
Z20 CONTINGENCIES	0.0%	0		0.00				
Z30 CM AT RISK PREMIUM	0.0%	0		0.00				
Z90 PROJECT COST ESTIMATE	$	7,421,889	$	281.91				

COSTPRO INC.
TOWN OF WAYLAND FACILITIES AUDIT
TOWN HALL EXPANSION - OPTION 3, 3B, 4,5
WAYLAND, MA 01778

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component		GFA(SF):	14,278	Date:	Apr-13		Sheet No: 1 OF 2		
Uniformat Element (Levels 2&3)		Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
A	SUBSTRUCTURE		367,516		25.74	7.7%			
	A10 Foundations	348,098		24.38			14,278	SF	24.38
	A20 Basement Construction	19,418		1.36			14,278	SF	1.36
B	SHELL		1,585,979		111.08	33.1%			
	B10 Superstructure	621,664		43.54			14,278	SF	43.54
	B20 Exterior Closure	730,755		51.18			10,640	SF	68.68
	B30 Roofing	233,560		16.36			12,133	SF	19.25
C	INTERIORS		665,983		46.64	13.9%			
	C10 Interior Construction	361,662		25.33			14,278	SF	25.33
	C20 Stairs	65,450		4.58			1	FLT	65450.00
	C30 Interior Finishes	238,871		16.73			14,278	SF	16.73
D	SERVICES		1,153,555		80.79	24.1%			
	D10 Conveying Systems	65,000		4.55			2	STOPS	32500.00
	D20 Plumbing	135,641		9.50			14,278	SF	9.50
	D30 HVAC	571,120		40.00			14,278	SF	40.00
	D40 Fire Protection	64,251		4.50			14,278	SF	4.50
	D50 Electrical Systems	317,543		22.24			14,278	SF	22.24
E	EQUIPMENT & FURNISHINGS		442,903		31.02	9.2%			
	E10 Equipment	372,227		26.07			14,278	SF	26.07
	E20 Furnishings	70,676		4.95			14,278	SF	4.95

COSTPRO INC.

Project Cost Plan (Uniformat II Level 3)

Project: New Addition Component				Date: Apr-13		Sheet No: 2 OF 2		
Uniformat Element (Levels 2&3)	Amount $	Total Cost $	Rate $/SF Floor Area		%	Element Quantities	Unit	Element Unit Rate
F SPECIAL CONSTRUCTION & DEMOLITION		0		0.00	0.0%			
F10 Special Construction	0		0.00			0	SF	0.00
F20 Selective Demolition	0		0.00			0	SF	0.00
G BUILDING SITEWORK		578,259		40.50	12.1%			
G10 Site Preparation	71,390		5.00			14,278	SF	5.00
G20 Site Improvements	257,004		18.00			14,278	SF	18.00
G30 Site Civil/Mechanical Utilities	214,170		15.00			14,278	SF	15.00
G40 Site Electrical Utilities	35,695		2.50			14,278	SF	2.50
G90 Other Site Construction	0		0.00			14,278	SF	0.00
SUBTOTAL		4,794,195		335.77	100.0%			
Z10 GENERAL REQUIREMENTS	0.0%	0		0.00				
Z20 CONTINGENCIES	0.0%	0		0.00				
Z30 CM AT RISK PREMIUM	0.0%	0		0.00				
Z90 PROJECT COST ESTIMATE	$	4,794,195	$	335.77				