2013 Municipal Space Study

Town of East Longmeadow, MA

April 15, 2013

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

Reinhardt Associates, Inc. responded to a Request for Proposals (RFP) issued by the Designer Selection Committee appointed by the Board of Selectmen to provide services for a municipal space study. The study is to include an assessment of nine town owned facilities'existing conditions, recommendations to address current and future municipal office space needs, prioritization of rehabilitation needs, and cost estimates. The scope of the services included: evaluate the existing building's structure, plumbing, heating, ventilation, fire protection, and electrical systems; code and zoning analysis; accessibility; perform a program and space needs assessment; prepare schematic design plans and cost estimates. RAI conducted site inspections and building assessment of the nine facilities with walk-through inspections conducted between February and March, 2013. The Designer Selection Committee provided RAI with drawings and other pertinent documents from previous studies and reports for review and for study purposes. The project began with an initial kick-off meeting with the Selection Committee to discuss the project's goals and objectives. This report outlines those findings and recommendations.

The facilities included are:

Town Hall and Public Library, 60 Center Square

Pleasantview Senior Center, 328 North Main Street

Department of Public Works, 84 Somers Road

Police Station, 160 Somers Road

Fire Department, 150 Somers Road

Water Department, 84 Somers Road

Former Fire Station, 39 Shaker Road

Pine Knoll Administration Building, 1974 Allen Street

The Committee emphasized the thrust of the report should address the overcrowding experienced presently in Town Hall and recommendations for its relief. The Town Hall Spatial Needs Assessment is based on the results of the Spatial Needs Survey which was executed by Town department heads and follow-up interviews with the supervisors and the working staff. The interviews gave an insightful view of the workings and operational needs of the departments. The Assessment is an ideal Town Hall conceptual office configuration, spatial requirements for individual department needs, review of individual space functions and furniture, equipment space requirements, existing functional spaces, the review of past discussions, and the experience of RAI with other nominal Town Office / Town Hall Facility programming and designs.

Design assumptions presented in the Schematic Design Drawings derive from the Space Needs Assessment which is based on renovating the existing Town Hall facility and adding to the facility to accommodate the recommended spatial requirements. Several design options were evaluated including utilizing the existing Town Hall footprint without expansion, a possible first floor addition, a combination of a first floor and second floor additions, and relocating some Town Hall functions to other facilities. This study does not explore obtaining other sites for relocation of some departments as no other sites were indentified or available for consideration at the time of this writing.

The Report presents three options for solutions to the overcrowding of Town Hall, which are detailed in the Schematic Design Narrative. Option 1 reconfigures the spaces within the existing Town Hall square foot footprint. Although redesigning and utilizing the existing building footprint, the redesign does not give adequate space for all departments and does not provide additional space to the departments for any imminent growth, which will not solve the space needs for the future.

Consideration was also given to utilizing the Library as an Annex to Town Hall by using its elevator and meeting rooms. The problem is, this discussion has taken place for several years and there still have been no movement towards any of its implementation. This idea still does not resolve the overall crowding condition, provide room for future growth, nor provide a legal second means of egress from the second floor of Town Hall.

Option 2 explored moving the DPW from the second floor of Town Hall to a new building addition creating a second floor over the existing first floor of the DPW Service Building, located on 84 Somers Road. While this option does free up some space within Town Hall, it only allows space for those departments that do not have adequate space now, and does not satisfy the Space Needs requirements for Town Hall going into the future.

The preferred Option 3 presents a Master Plan that successfully resolves all of the overcrowding conditions, provides room for future growth, gives better inter-department adjacencies, cures code deficiencies, provides full accessibility, and makes Town Hall easier to use by the public and its employees. The plan involves consideration for a building addition and alterations to existing spaces to accommodate the present and future spatial needs and to comply with applicable codes. The alterations renovate the existing toilets near the main entry and make them handicapped accessible. Existing departments are redistributed in Town Hall that makes better efficient use of space and gives room for Accounting and those departments that were lacking space. IT Dept. is relocated to the Former Fire Station at 39 Shaker Road and that space is given to improve other departments. A new code compliant stairwell and elevator are added on the north side of Town Hall to make the Town Offices available to all members of the public to transact business. The south side will receive a one story addition that will give the Building Department a needed new home, create a new State compliant records' vault, conference room, storage, and a Board of Selectmen Conference Room.

Building assessments were conducted to the remaining Town facilities. Evaluations were made of the existing building's structure, plumbing, heating, ventilation, fire protection, electrical systems, code and accessibility. The existing conditions reports indentified current conditions, deficiencies, missing elements and suggestions for areas of improvements for each facility. Construction cost budgets are included to give an idea of the financial impact the recommendations have for Town Hall in Options 1, 2,& 3, and for improvements to the remaining Town Facilities..

TOWN HALL SPACE NEEDS ASSESSMENT

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TOWN HALL SPACE NEEDS ASSESSMENT

The following listing of recommended spatial accommodations for a renovated and or addition to the existing Town Hall Facility are based on an ideal Town Hall conceptual office configuration, spatial requirements for individual department needs, interviews with town staff and department heads, review of individual space functions and furniture / equipment space requirements, existing functional spaces, and the experience of RAI with other nominal Town Office / Town Hall Facility programming and designs. For purposes of this Space Needs Assessment, descriptions are limited to physical spatial features and do not detail all space features, adjacencies or other non-spatial considerations.

Lobby/ Vestibule — 160 NSF

Energy Code required airlock at Building Entrance
Handicap Accessible Entrance
Department Directional Information
Public Information Displays and Dispensers
Bench or Seating for Four (4)

Board of Selectmen — 430 NSF

Three (3) Administrative Workstations and One Future
Selectmen's Office/Conference Room Seating (4)
Visitor Waiting / Seating: Two (2)
Provide Visual Surveillance of Lobby
Board of Health Officer
Animal Control Officer
File Cabinets: (10 to 12)
Office Supply Cabinet

Town Administrator — 180 NSF

Private Office
Single Administrative Workstation
Small Private Meeting Table and Seating (4)
File Cabinets: (3)
Bookshelves

Benefit's Manager's Office — 280 NSF

Private Office
Single Administrative Workstation
Small Private Meeting Table and Seating (4)
File Cabinets: (4 to 6)
Secure Storage
Bookshelves
Ante Room for One (1) Administrative Workstation
Visitor Waiting / Seating: Two (2)
Display Area for Benefit Plans
Copier/Fax Machine

Hearing Meeting Room **700 NSF**

Public Meetings and Hearings
Board of Selectmen Meeting Room
Seating Capacity for Forty (40)
Secure Storage Area for Town Equipment / Furniture

Clerk's Office **460 NSF**

Shared Office for Clerk, Treasurer, Collector
Three (3) Administrative Workstations
Public Transaction Counter / Handicap Accessible
Visitor Waiting / Seating: Two (2)
Private Office for Town Clerk
Single Administrative Workstation
Small Meeting Table and Seating (4)
File Cabinets: (10 to 12)
Office Supply Closet/Cabinet
Mailing Machine, Copier/Fax Machine
Security System, Card Swipe Entry, Alarms, Panic Button, Cameras, Motion Detectors

Clerk's Record Storage Vault **400 NSF**

Secure and Fire Resistive Storage of Official Town Records
Complies with MA Secretary of State Vault Requirements
Voting Machine Storage
File Cabinets
Open Storage Shelving

Collector's Office **360 NSF**

Shared Office for Clerk, Treasurer, Collector
Two (2) Administrative Workstations
Public Transaction Counter / Handicap Accessible
Visitor Waiting / Seating: Two (2)
File Cabinets: (10 to 12)
Office Supply Closet/Cabinet
Safe
Money Counting Machine
Security System, Card Swipe Entry, Alarms, Panic Button, Cameras, Motion Detectors

Treasurer's Office **0 NSF**

Shared Office for Clerk, Treasurer, Collector
Private Office for Town Clerk
Single Administrative Workstation
Small Meeting Table and Seating (4)
File Cabinets: (10 to 12)

Treasurer's Record Storage — 120 NSF

Secure Storage for Personnel Records
File Cabinets: 10 Minimum

Accountant's Office — 360 NSF

Private Office
Single Administrative Workstation
Small Private Meeting Table and Seating (4)
File Cabinets: (3)
Bookshelves
Three Administrative Workstations for (2) F/T and (1) P/T and One Future
File Cabinets: (8 to 10)
Office Supply Closet / Cabinet

Information Technology — 800 NSF

Two (2) Private Offices
Single Administrative Workstation for Each Office
Small Private Meeting Table and Seating (4) for One Office
File Cabinets: (8 to 10)
Two (2) Data / I.T. Workstations and Two Future
Two (2) Administrative Workstations and One Future
Conference / Classroom for Training Seating Ten (10)
Communication Hub for Entire Town
Emergency Management Director
Staging / Testing Data and Communication Equipment
Large Secure Storage for Equipment, Tools and Parts
Duel-fuel Back-up Generator

Data Server Room — 280 NSF

Data Network Server Equipment
24/7 Dedicated Air Conditioning
Security System, Card Swipe Entry, Alarms, Cameras, Motion Detectors
Data Equipment Fire Suppression System
Water Line for Humidification, Drain for A /C Condensate
Duel-fuel Back-up Generator

Assessor's Office — 724 NSF

Private Office
Single Administrative Workstation
File Cabinets: (3)
Bookshelves
Four (4) Administrative Workstations and One Future
Public Transaction Counter with Computer / Monitor / Handicap Accessible
Visitor Waiting / Seating: Two (2)
Board of Assessor's Office/Conference Room Seating (6 - 8) w/TV Camera
File Cabinets: 14
Large Flat Files: 2
Secure File Storage
Security System, Push Button Code Entry, Alarm

Building Department **500 NSF**

Private Office
Single Administrative Workstation
Small Private Meeting Table and Seating (4)
File Cabinets: (3)
Bookshelves
Four (4) Administrative Workstations
Public Transaction Counter / Handicap Accessible
Visitor Waiting / Seating: Two (2)
File Cabinets: (8 to 10)
Large Flat Files: 2
Plan Tube Storage

Planning / Zoning / Conservation **438 NSF**

Private Office
Single Administrative Workstation
Small Private Meeting Table and Seating (6)
File Cabinets: (3)
Bookshelves
One (1) Administrative Workstation
Public Transaction Counter / Handicap Accessible
Visitor Waiting / Seating: Two (2)
File Cabinets: (8 to 10)
Large Flat Files: 2
Hanging Drawing / Map Files: 2

Department of Public Works **982 NSF**

Two (2) Private Offices
Single Administrative Workstation for Each Office
Conference Room Seating Ten (6)
Bookshelves
Six (6) Administrative Workstations
Public Transaction Counter / Handicap Accessible
Visitor Waiting / Seating: Two (2)
File Cabinets: (12 to 14)
Large Flat Files: 2
Hanging Drawing / Map Files: 2
SCADA Equipment
Building Automation Computer Equipment

Copy/ Work Room **320 NSF**

Secure Storage Cabinets and Work Counters
Multi-Purpose Work Tables and Seating (6)
Copier / Fax Machine
Mail Machine
Shredding Machine
Mailboxes / Mail Room
Employee Notifications

Break / Lunch Room **320 NSF**

Kitchen Cabinets and Counter
Kitchen Sink, Refrigerator and Microwave
Tables and Seating (10 to 12)

Restrooms **360 NSF**

Handicap Accessible Toilet Facilities for Staff and Visitors

Female: (2)Water Closets
(2)Lavatories

Male: (1)Water closet
(1)Urinal
(2)Lavatories

Stairs **2 @ 180 SF = 360 NSF**

Stair access from Lobby to other Building Levels
Minimum Two (2) Remote Stairs required for Means of Egress

Elevator **80 NSF**

Vertical Access between all Building Levels
Handicap Accessible / Emergency Stretcher Accessible

Elevator Machine Room **60 NSF**

Dedicated Elevator Equipment Room

Janitor / Supply Room **60 NSF**

Janitor Mop Sink
Custodial Supply / Storage Shelving

General Building Storage **700 NSF**

Miscellaneous Town Office Storage / Shelving

Electrical / Communications Room	**180 NSF**
Electrical Service and Distribution Equipment Communications Equipment and Backboard	
Mechanical / Sprinkler Room	**400 NSF**
Mechanical HVAC Equipment / Boiler Fire Suppression Main Service	
Sub-total Net S.F.:	**10,014 NSF**
Net S.F. to Gross S.F. Factor @ 130% = (Walls, Structure, Circulation, Etc.)	x 1.30
Total Town Hall Estimated Gross S.F.:	**13,018 GSF**

Square Foot Matrix	**NSF**
Manager's Office w/ 4 seat conference table	150 – 200 NSF
Asst. Manager's Office	80 – 100 NSF
Workstation	44 – 50 NSF
Conference Room w/ 12 seats	200 NSF
Letter File Cabinet	6 NSF
Public Counter & Waiting per person	66 NSF
Legal File Cabinet	7 NSF
Plan/Map File Cabinet	32 NSF
Plotter/Scanner	96 NSF
Copier	60 NSF

TOWN HALL SPATIAL NEEDS SURVEY FORM

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SPATIAL NEEDS SURVEY FORM

Print Name: Nick Breault

Dept./Subgroup: Board of Selectmen

Title: Town Administrator

Dept./Subgroup Staff Size: 3 FTE's in the Office; 1 FTE in the Clerk's Office

Managerial Staff: 1 FTE (Town Administrator

This office also had 1 PT ee 8a-10:30a M-F; 1 PT ee 8a-9:30a M,W,F; and 1 PT ee 8a-10 up to 5 days/week (varies). This office also serves as the Office for the Animal Control Officer (stipend/on-call) and the Alternate ACO, who both come in periodically during the week.

In-Building Hours of Operation: 8:00 AM-4:00 PM; M-F; and night meetings

Technical/ Professional Staff :

Primary Dept./ Subgroup Inter-dependencies: Board of Selectmen/Board of Health; Building Department and Inspectional Services (Electrical, Plumbing and Animal Control). It also serves as the point of contact for the Regional Veterans Services Director, although a satellite office is located in the COA. The Benefits Administration Manager is under the authority of this office, but located in the Clerk's Office. There is a proposal to add a half-time clerical support position for this; and to make a full time building clerical support. I will need to explain this in person, as it is a fluid situation. it should be noted that the Board of Selectmen/Board of Health (BOS) is a 3 person elected board. These individual do not have a designated space to conduct private meetings or other business, except for the Selectmen's Conference Room, which also doubles as the Town Administrator's Office.

Secondary Dept./ Subgroup Inter-dependencies: The Town does not currently have a Human Resources Department, or a Law Department. While Law Services are provided by outside attorneys with their own offices, and there has not been nor do I expect there to be public discussion about the need to bring them in house, there had been much discussion about establishing an HR Department. This would add another FTE, and possibly an Administrative Assistant.

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.): Unknown Visitor/ Vendor Contract (High, Medium, Low): **Medium to High Visitors in the morning due to builders, etc. then, it can be sporadic. But this is a public office with visitors for many reasons.**

Functional Space Requirements:

Office(s):

Meeting/ Conference (# Staff): Need 1; have 1 now that doubles as the Town Administrator's Office; 1 more for the BOS would held

Admin./ Clerical: 1- Town Administrator

Technical/ Professional: Several file cabinets; 10-12; plus several archives in the basement

Storage Area: The Hearing Room, for BOS meetings, and other types of meetings

Shared Inter Dept. Area: There is no designated Break Room for Town Hall, except for the Hearing Room, which is not a cafeteria

Specialty/ Other:

Furniture/ Fixtures Requirements: Up to 8-10 work stations; if each inspector had their own like the staff does.

Specialized Equipment:

Specialized Features/ Requirements:

Electrical:

Communications:

HVAC:

Plumbing:

Security: This office holds many kinds of confidential information that needs to be secure.

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SPATIAL NEEDS SURVEY FORM

Print Name: Tom Florence

Dept./Subgroup: Clerk's Office

Title: Town Clerk, Treasurer, Collector

Dept./Subgroup Staff Size: 6 for now

Managerial Staff: 1

Admin./ Clerical Staff : 5

In-Building Hours of Operation: 8 AM – 4 PM

Technical/ Professional Staff : 0

Primary Dept./ Subgroup Inter-dependencies: Administrative work. Setting up all Elections, Town Meetings, Census Population Voter Information, Keeper of Vital Records (Marriage, Birth and Death Certificates). Process all Dog Licenses, Gaming Licenses and Business Licenses. Collect over $45M to $50M in taxes and revenues. Work closely with the MUNIS system to post and reconcile all payments (Excise, Water/Sewer, Real Estate and Personal Property. Reconcile all cash on a daily basis. Balance with the Accounting Office, Bank Statements, Payroll. Responsible for daily cash flow of Town and Status of each Account on a daily basis.

Secondary Dept./ Subgroup Inter-dependencies: Benefits Coordinator has office at the end of the Clerk's area. She reports to the Town Administrator but has space here.

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.): Visitor/ Vendor Contract (High, Medium, Low):

Functional Space Requirements:

Office(s): 2

Meeting/ Conference (# Staff): 1, also break area

Admin./ Clerical:

Technical/ Professional:

Storage Area:

Shared Inter Dept. Area:

Specialty/ Other:

Furniture/ Fixtures Requirements: PC's, room for copiers, mailing machine, fax, department printers. Always can use more

Specialized Equipment: Alarm system, money counter machines, panic

Specialized Features/ Requirements:

Electrical: Alarm system, PC's, security camera, motion detector, panic buttons to ELPD

Communications: Phone system supported by IT. PC's

HVAC: Cannot get to work in Office between 68 and 75 exterior temp

Plumbing:

Security:

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SPATIAL NEEDS SURVEY FORM

Print Name: Diane L. Hildreth

Dept./Subgroup: Assessor's

Title: Director of Assessors

Dept./Subgroup Staff Size: 3 full time/3 part time/ 2 or more consultants

Managerial Staff: 1 + 3 Board Members

Admin./ Clerical Staff : 2

In-Building Hours of Operation: 8 -4 plus evening meetings

Technical/ Professional Staff : 2

Primary Dept./ Subgroup Inter-dependencies: Planning Department, Building Department, DPW-mapping + Water / Sewer, Clerk / Collector

Secondary Dept./ Subgroup Inter-dependencies: Accounting, Selectmen, Council on Aging

Other Inter-dependencies (Interior/ Exterior): Veterans Agent

Approx. Existing Dept./ Subgroup Area (sf.): _____ Visitor/ Vendor Contract (High, Medium, Low): High Traffic

Functional Space Requirements:

Office(s): 2 Offices

Meeting/ Conference (# Staff): Assessors Conference /Meeting

Admin./ Clerical: Space for two fulltime staff (future 3rd staffer)

Technical/ Professional: Consultant workstation-once a week average

Storage Area: Never enough. Maps and property cards permanent

Shared Inter Dept. Area: Conference for roundtable review with various departments

Specialty/ Other:

Furniture/ Fixtures Requirements: Mapping cabinets, two resident workstation-CAMA and Mapping, cabinets for historical records, commitment books.

Specialized Equipment:

Specialized Features/ Requirements:

Electrical:

Communications:

HVAC:

Plumbing:

Security:

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SPATIAL NEEDS SURVEY FORM

Print Name: Robyn Macdonald

Dept./Subgroup: Planning, Zoning and Conservation

Title: Administrator Planning, Zoning & Conservation

Dept./Subgroup Staff Size: 2

Managerial Staff: 1

Admin./ Clerical Staff : 1

In-Building Hours of Operation: 8 -4 plus evening meetings

Technical/ Professional Staff : 0

Primary Dept./ Subgroup Inter-dependencies: Department of Public Works, Building Department, Assessors Department, Town Clerk & Board of Selectmen

Secondary Dept./ Subgroup Inter-dependencies: Accounting, IT

Other Inter-dependencies (Interior/ Exterior): Police and Fire

Approx. Existing Dept./ Subgroup Area (sf.): 375

Visitor/ Vendor Contract (High, Medium, Low): **Medium**

Functional Space Requirements:

Office(s): 2

Meeting/ Conference (# Staff): 1 share with DPW seating capacity for 6

Admin./ Clerical: 2

Technical/ Professional: 1

Storage Area: Large area required as most documents and files must be kept in perpetuity

Shared Inter Dept. Area: Large enough for conferences with at least 6 people in attendance

Specialty/ Other: Private Office for confidential discussions with developers for future plans and purchases of property

Furniture/ Fixtures Requirements: Mapping cabinets, two resident workstation-CAMA and Mapping, cabinets for historical records, commitment books.

Specialized Equipment: Hanging file cabinets for plans

Specialized Features/ Requirements:

Electrical:

Communications:

HVAC:

Plumbing:

Security: One push button access control

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SPATIAL NEEDS SURVEY FORM

Print Name: Daniel Hellyer

Dept./Subgroup: Inspections

Title: Building Committee

Dept./Subgroup Staff Size: 5

Managerial Staff: 1

Admin./ Clerical Staff : 1

In-Building Hours of Operation: 8 AM – 4 PM

Technical/ Professional Staff : 4

Primary Dept./ Subgroup Inter-dependencies: Inspection Services include building, sheet metal, electrical, plumbing, gas, weights and measures

Secondary Dept./ Subgroup Inter-dependencies:

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.):

Visitor/ Vendor Contract (High, Medium, Low): Very High

Functional Space Requirements:

Office(s): 120 S.F.

Meeting/ Conference (# Staff): None

Admin./ Clerical: Desk in Selectmen's Office

Technical/ Professional: 1 desk and folding chairs in the Selectmen's Office

Storage Area: Minimal

Shared Inter Dept. Area: Selectmen's Office

Specialty/ Other:

Furniture/ Fixtures Requirements: 4 desks and multiple file cabinets, book cases, conference table and chairs to meet with residents and review plans

Specialized Equipment:

Specialized Features/ Requirements:

Electrical:

Communications: 4 phones, 4 computers

HVAC:

Plumbing:

Security:

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SPATIAL NEEDS SURVEY FORM

Print Name: David J. Gromaski, P.E.

Dept./Subgroup: Department of Public Works / Town Hall

Title: Superintendent Public Works

Dept./Subgroup Staff Size: 8

Managerial Staff: 3

Admin./ Clerical Staff : 3

In-Building Hours of Operation: Mon-Fri 8 AM-4PM

Technical/ Professional Staff : 2

Primary Dept./ Subgroup Inter-dependencies: Highway, Water, Sewer, Disposal, Energy, Snow & Ice, Building Maintenance

Secondary Dept./ Subgroup Inter-dependencies: Planning Department

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.): 2170 sq. ft. Visitor/ Vendor Contract (High, Medium, Low): High

Functional Space Requirements:

Office(s): 1-Superintendent

Meeting/ Conference (# Staff): 1-Meeting Room that seats 6 people

Admin./ Clerical: 1-Clerical, 1-Adminstrative

Technical/ Professional:

Storage Area: 3rd Floor Storage, SCADA equipment, and scanners

Shared Inter Dept. Area: Woman and Men's Bathrooms shared with Planning Dept.

Specialty/ Other:

Furniture/ Fixtures Requirements: Desks, File Cabinets, Credenza's for all staff members

Specialized Equipment: SCADA Computer Equipment, Building Automation Computer Equipment

Specialized Features/ Requirements:

Electrical: SCADA computer is on generator back up

Communications: Voice over IP phones for each staff member and two base radio units for communications with DPW trucks

HVAC: 5 Ton Carrier Heating & Air Conditioning

Plumbing:

Security: Two swipe card systems to access office along with push button controls

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SPATIAL NEEDS SURVEY FORM

Print Name: John Collins

Dept./Subgroup: Department of Public Works

Title: Operations Manager

Dept./Subgroup Staff Size: 31

Managerial Staff: 1

Admin./ Clerical Staff : 0

In-Building Hours of Operation: 7 AM-4PM

Technical/ Professional Staff : 6 foreman

Primary Dept./ Subgroup Inter-dependencies: Water Division, Sewer Division, Parks Division, Highway Division

Secondary Dept./ Subgroup Inter-dependencies:

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.): 13,316 sq. ft. Visitor/ Vendor Contract (High, Medium, Low): Low

Functional Space Requirements:

Office(s): 3 Office

Meeting/ Conference (# Staff): Cafeteria serves as meeting space for all 32 staff members and Board Meetings

Admin./ Clerical: 1 Administration Office

Technical/ Professional:

Storage Area: 6 Storage Areas

Shared Inter Dept. Area: 1 Shared Office (Foreman's Room)

Specialty/ Other: 10 Garage Bays for housing vehicles, repairs and storage

Furniture/ Fixtures Requirements: 3 Desk for office staff plus filling cabinets and chairs, seven cafeteria tables along with 30 lockers for staff

Specialized Equipment: Waste oil burner, vehicle hydraulic lift

Specialized Features/ Requirements:

Electrical: Building backed up with 60KW Kohler Generator

Communications: 3 Office phones along with Town wide radio system and dispatch area

HVAC: H.B. Smith 19 Series, 11 Section hot water boiler

Plumbing:

Security: Two swipe card access points / two security cameras

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SPATIAL NEEDS SURVEY FORM

Print Name: Tom Caliento

Dept./Subgroup: Accounting

Title: Accountant

Dept./Subgroup Staff Size: 4

Managerial Staff: 1

Admin./ Clerical Staff : 2 Full Time, 1 Part Time

In-Building Hours of Operation: Mon-Fri 8 AM- 4 PM

Technical/ Professional Staff :

Primary Dept./ Subgroup Inter-dependencies: Book Keeping, Payroll

Secondary Dept./ Subgroup Inter-dependencies: Employee Benefits

Other Inter-dependencies (Interior/ Exterior): All Departments

Approx. Existing Dept./ Subgroup Area (sf.):

Visitor/ Vendor Contract (High, Medium, Low): Low

Functional Space Requirements:

Office(s): Private Accountant Office

Meeting/ Conference (# Staff): 1- Future Work Station

Admin./ Clerical:

Technical/ Professional:

Storage Area:

Shared Inter Dept. Area:

Specialty/ Other:

Furniture/ Fixtures Requirements:

Specialized Equipment:

Specialized Features/ Requirements:

Electrical:

Communications:

HVAC:

Plumbing:

Security:

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SPATIAL NEEDS SURVEY FORM

Print Name: Ryan Quimby

Dept./Subgroup: Information Technology

Title: IT Director / Acting EM Director

Dept./Subgroup Staff Size: 3 FTE's in the Office; 1 FTE in the Clerk's Office

Managerial Staff: 2

Admin./ Clerical Staff : 2

In-Building Hours of Operation: 8AM-4PM M-F with 24/7 call + off hrs Maint.

Technical/ Professional Staff : 2

Primary Dept./ Subgroup Inter-dependencies: The IT department works with all departments in all buildings. We do not specifically have any Interdependencies but we do have a fixed server room in the Town Hall.

Secondary Dept./ Subgroup Inter-dependencies:

Other Inter-dependencies (Interior/ Exterior): The IT Department staff is very mobile. We are in and out of the Building multiple times a day.

Approx. Existing Dept./ Subgroup Area (sf.): 273 sq. ft. Office, 273 sq. ft Server Room Visitor/ Vendor Contract (High, Medium, Low): **Medium**

Functional Space Requirements:

Office(s): We need at least 2 individual offices, and a shared workspace for the rest of the staff

Meeting/ Conference (# Staff): A technology integrated conference room to collaborate with Town and School Departments

Admin./ Clerical: Clerical staff/ admin staff can share workspace with techs. Optionally separate office for administration

Technical/ Professional: Technicians can share space with clerical and non-ideally administrative staff

Storage Area: Large secured storage for equipment staging, tools and spare part storage

Shared Inter Dept. Area: Office for staging equipment and testing lab. Currently techs work on equipment on their desks

Specialty/ Other: Server Room – no fire suppression, weak security access

Furniture/ Fixtures Requirements: Computer workstation desks with multi monitor, multi system configurations kept in mind

Specialized Equipment: Work areas for computer repair, computer staging, network and environment monitoring

Specialized Features/ Requirements:

Electrical: Server room has strong electrical requirement needs as well as generator backup, preferably dual fuel or diesel. The Administrative Offices should also be generator backup due to disaster response and having to service the equipment.

Communications: As the communication hub of the Town and School departments, communications needs are very high. We administer the phone systems, paging systems and radio systems.

HVAC: Server Room needs redundant cooling. Our offices are also cooled year round because of the large amount of computer Equipment.

Plumbing: Water line for humidification for server room, and drains of AC units.

Security: IT office and server room house critical infrastructure for the Town and School Department. All technology deployments first are staged in our department before being deployed. Types of systems that are housed are surveillance cameras, public safety servers, phone servers for large portion of the own, etc. Security is VERY important.

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SPATIAL NEEDS SURVEY FORM

Print Name: Douglas Mellis

Dept./Subgroup: Police

Title: Chief

Dept./Subgroup Staff Size: 28

Managerial Staff: 1

Admin./ Clerical Staff : 2

In-Building Hours of Operation: 24/7

Technical/ Professional Staff :

Primary Dept./ Subgroup Inter-dependencies: Police – Security issues

Secondary Dept./ Subgroup Inter-dependencies: IT house servers for the IT Department

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.):

Visitor/ Vendor Contract (High, Medium, Low):

Functional Space Requirements:

Office(s):

Meeting/ Conference (# Staff): Room in Basement seats 10

Admin./ Clerical: Seems sufficient

Technical/ Professional:

Storage Area: Seems adequate

Shared Inter Dept. Area: None

Specialty/ Other:

Furniture/ Fixtures Requirements:

Specialized Equipment: Computer systems, radio communication State 911 telephone system as well as State computer systems.

Specialized Features/ Requirements:

Electrical: Emergency back-up generator

Communications:

HVAC: Heating and Air for 24/7 operation

Plumbing:

Security: Door Swipes

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SPATIAL NEEDS SURVEY FORM

Print Name: Paul J. Morrissette

Dept./Subgroup: East Longmeadow Fire Department

Title: Fire Chief

Dept./Subgroup Staff Size: 7 career, 26 Call Firefighters

Managerial Staff: Chief and Deputy Chief

Admin./ Clerical Staff : 7 Career Firefighters

In-Building Hours of Operation: Mon-Fri. 8 AM – 4 PM on-call other

Technical/ Professional Staff : Fire Inspector

Primary Dept./ Subgroup Inter-dependencies: Fire Protection, Inspection, Training and Fire Adminstration

Secondary Dept./ Subgroup Inter-dependencies:

Other Inter-dependencies (Interior/ Exterior):

Approx. Existing Dept./ Subgroup Area (sf.): _____ Visitor/ Vendor Contract (High, Medium, Low): _____

Functional Space Requirements:

Office(s): 1-Chief 1-Deptuty Chief and Inspector

Meeting/ Conference (# Staff): 1-Large Training Room, 1 Medium Training / Conference Room

Admin./ Clerical: See Above

Technical/ Professional: 1-Dispatch Area

Storage Area: 1-Small Closet (office supplies), 1-Janitor's Closet, 1-Mechanics Room, Upstairs Storage

Shared Inter Dept. Area: 1-Large Apparatus Bay used for Fire Apparatus and Firefighting Equipment

Specialty/ Other: 1-Day Room, 1-Fitness Room, 1-Kitchen, 1-Large Men's Locker Room, 1-Small Lady's Locker Room

Furniture/ Fixtures Requirements: As outfitted in above rooms

Specialized Equipment: Vehicle Exhaust System, SCBA Bottle Compressor

Specialized Features/ Requirements:

Electrical: As required with generator backup

Communications: Phones & PA system throughout the Building, Fire Department Radio Communications in several areas
Computers and Network in all offices and training rooms

HVAC: Complete HVAC System in Office Area, Heat Only in Apparatus Bays

Plumbing: As required wit extra drops for Fire Apparatus filling

Security: Burglar & Fire Alarm System, Fire Sprinkler System, Security Cameras on 3 Main Doors

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SPATIAL NEEDS SURVEY FORM

Print Name: Carolyn Brennan

Dept./Subgroup: Senior Center

Title: Director

Dept./Subgroup Staff Size: 8

Managerial Staff: 1

Admin./ Clerical Staff : 7, add 2 in future

In-Building Hours of Operation:

Technical/ Professional Staff : Full Time Nurse

Primary Dept./ Subgroup Inter-dependencies: Council on Aging, Veterans

Secondary Dept./ Subgroup Inter-dependencies: IT, Selectmen, Accounting

Other Inter-dependencies (Interior/ Exterior): Transportation, Meals

Approx. Existing Dept./ Subgroup Area (sf.):

Visitor/ Vendor Contract (High, Medium, Low): High

Functional Space Requirements:

Office(s): 1-Nurse

Meeting/ Conference (# Staff): 1-Meeting Room that seats 10 people

Admin./ Clerical:

Technical/ Professional: Classroom needed

Storage Area: Additional Storage needed

Shared Inter Dept. Area: Additional Parking

Specialty/ Other: Larger Food Pantry

Furniture/ Fixtures Requirements: Desks, File Cabinets for all staff members

Specialized Equipment:

Specialized Features/ Requirements:

Electrical:

Communications:

HVAC:

Plumbing:

Security:

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SPATIAL NEEDS SURVEY FORM

Print Name: Colin Drury

Dept./Subgroup: Recreation Department Office

Title: Recreation Director

Dept./Subgroup Staff Size: 5

Managerial Staff: 1

Admin./ Clerical Staff : 4

In-Building Hours of Operation: M-F 8:00 AM – 4 PM.

Technical/ Professional Staff : 1 + Interns (1-3)

Primary Dept./ Subgroup Inter-dependencies: Clerk's Office , DPW, Board of Selectmen, School Department

Secondary Dept./ Subgroup Inter-dependencies: Accounting Department Council on Aging

Other Inter-dependencies (Interior/ Exterior): 5400 Program Spots per year, +500 from 2011. Would like to expand to Pre-K and adult programming with a Community Center with outdoor fields is our main goal.

Approx. Existing Dept./ Subgroup Area (sf.): 1504 SF

Visitor/ Vendor Contract (High, Medium, Low): High

Functional Space Requirements:

Office(s): 1 Main Office (3-4 Desks) w/ waiting area, 1 Director Office, 1 Assistant Director Office (FY14)

Meeting/ Conference (# Staff): 12 (Rec. Commission = 9, 1 Director, Office Staff) Current - 8

Admin./ Clerical: 4 (1 Shared with IT Department)

Technical/ Professional: 1 (Multiple Interns/ Year – 1-3 at any given time)

Storage Area: 15 Sports (4 Closets Currently)

Shared Inter Dept. Area: None

Specialty/ Other: Pine Knoll recreation Area (Seasonal Facility) 3-4 month season – Not safe in winter

Furniture/ Fixtures Requirements: 6 Desks (5 with computers – one with internet access.) Storage shelves in split room for each sport, currently have 2 Desks in office with a handicap counter being used as the 3rd. Other staff and interns use our current Boardroom table. Which is in the same room as the Directors desk (No Privacy). Would like separate offices for Director and Assistant Director as stated above.

Specialized Equipment: Main goal/dream is to have a community center that would house the Recreation department and would include a competition pool, a field house with 4 basketball courts, track with amenities, a rock wall, and drop down training nets. The building would also incorporate activity rooms for fitness programs, a fitness center, and a connected storage facility that can be accessed inside the building, but also can be accessed 24 hours a day by our sports coordinators by the exterior of the building while maintaining security. I would like it to also have a kitchen facility for special Town events. Since this facility alleviates the current facility strain we have for basketball, I would like it to also be on a property that can accommodate the current field needs the Town had. This facility would allow us to better serve the Town as a whole instead of just serving the youth population only. Dream big.

Specialized Features/ Requirements:

Electrical:

Communications: Upgrade Online Registration System

HVAC:

Plumbing:

Security: Same system that is in other Town Buildings (ID Card with access to specific facilities and rooms

PROPERTY CONDITION ASSESSMENT

TOWN HALL
PUBLIC LIBRARY
PLEASANTVIEW SENIOR CENTER
DEPARTMENT of PUBLIC WORKS
POLICE STATION
FIRE DEPARTMENT
WATER DEPARTMENT
FORMER FIRE STATION
PINE KNOLL ADMINISTRATION BUILDING

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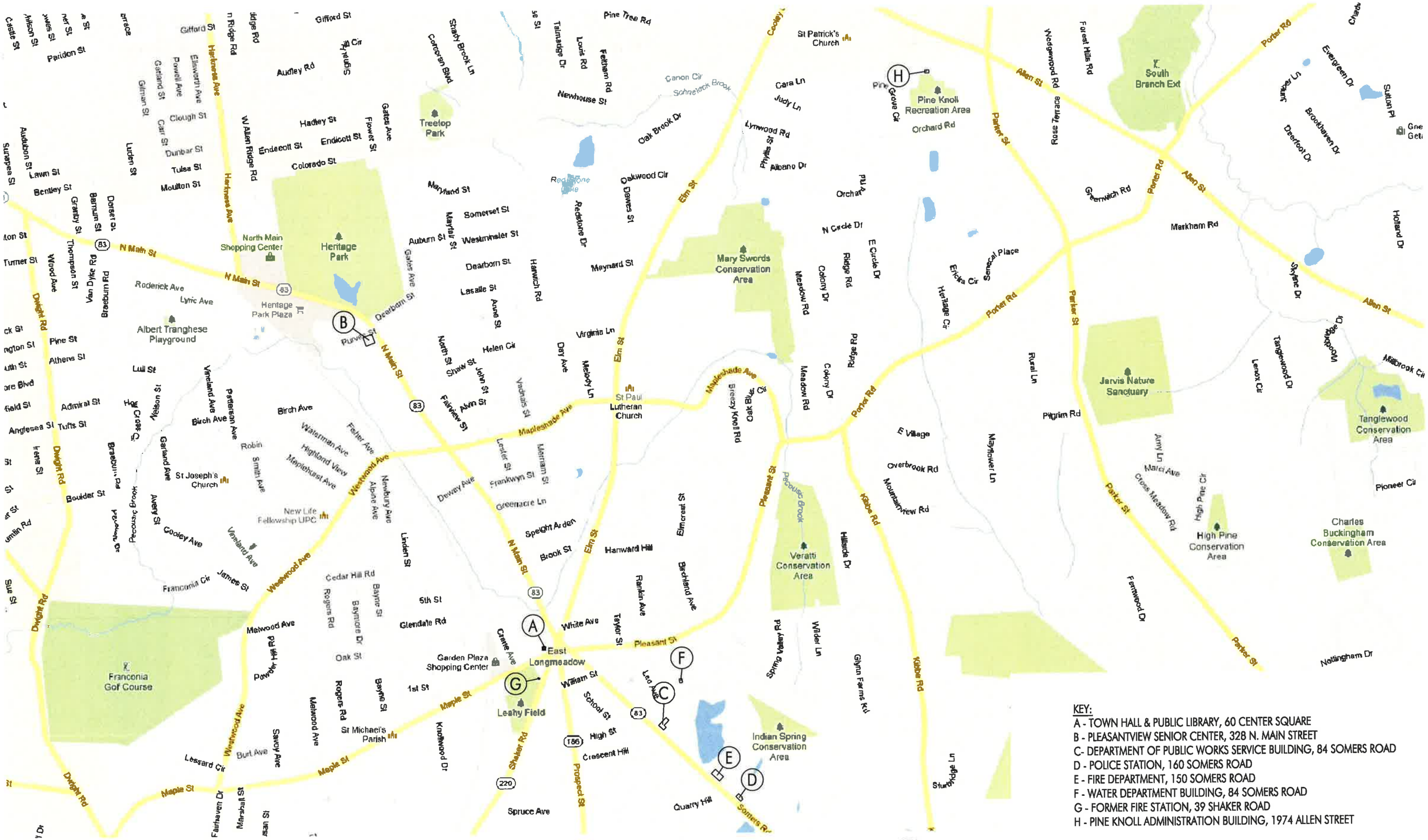

KEY:

A - TOWN HALL & PUBLIC LIBRARY, 60 CENTER SQUARE
B - PLEASANTVIEW SENIOR CENTER, 328 N. MAIN STREET
C- DEPARTMENT OF PUBLIC WORKS SERVICE BUILDING, 84 SOMERS ROAD
D - POLICE STATION, 160 SOMERS ROAD
E - FIRE DEPARTMENT, 150 SOMERS ROAD
F - WATER DEPARTMENT BUILDING, 84 SOMERS ROAD
G - FORMER FIRE STATION, 39 SHAKER ROAD
H - PINE KNOLL ADMINISTRATION BUILDING, 1974 ALLEN STREET

MAP OF EAST LONGMEADOW, MA

NORTH

PROPERTY CONDITION ASSESSMENT

TOWN HALL

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DESCRIPTION:

The Town Hall is a red brownstone, two story, hip roof structure, featuring a bell tower at the front of the building. The building was built in 1938 and has a one story brick and brownstone panel addition constructed in 1966, to the south of the original building. The first floor level houses the assessor's office, town accountant, information technology & emergency management departments, building, health, town administrator, selectman's meeting room, clerk/treasurer/collector, benefit's manager, copy center, and public restrooms. The second floor has the planning, zoning, and conservation office, public works department, and two small employee restrooms. A small third floor level has a plotting machine, and plan storage used by public works. The basement contains the heating plant, electrical services, and record storage.

The building is approximately 15,365 sq. ft. and is located at 60 Center Square, East Longmeadow, MA. The parcel size is made of two adjoining lots sized 0.76 acre and 0.72 acre totaling 1.48 acres. The lot is zoned Business. The Library was built adjacent to and south of Town Hall, which are connected by a First Floor fire door. The site is flat and shares parking with the Library and the adjacent shopping center.

ARCHITECTURAL EXISTING CONDITIONS:

The upper level of the building has 17 year old asphalt roof shingles, cooper gutters, copper downspouts, and cast iron leaders. The lower roof is a 16 year old EPDM single-ply membrane with metal edge coping and interior drains. There is no evidence of or reported water leakage or damage to the interior at the time of this writing. Below the upper roof line is a wood cornice with decorative brackets. Below the lower roof is a wood fascia and soffit. The brownstone masonry appears to be in good condition in both the original building and the addition. There are a few of cracks in the masonry, some signs of needed repointing work at mortar joints and some mold growth on the lower level of the east and west sides. The original two story Town Hall building has replacement, wood, insulated, double-hung windows with screens, polymer trim, and stone sills. The first floor addition has its original aluminum, insulated, fixed and hopper windows and stone sills. The windows are in good condition. The front entrance to Town Hall has a pair of original 2" thick wood doors in an arched opening and a matching arched divided lite window in the adjacent wall. The other entrances are aluminum storefront doors with push button automatic openers, and metal service doors. The original building is a wood framed structure and the addition is steel framed. The condition of the wood framing could not be determined due to the conditions being concealed. Yet the building shows no signs of stress, settlement or cracks. The foundation of the 1938 building is stone and rubble and has a basement for the heating plant, electrical panels, and file storage. The first floor

addition is a concrete slab on grade. Exterior wall insulation could not be determined without destructive investigation, which was not a part of this scope. The attic is insulated with fiberglass batt insulation. The interior finishes are painted plaster and gypsum board walls, ceramic tile wainscot in the original building, ceilings are suspended acoustic tile and adhered acoustic tile in the selectman's meeting room, and floors are carpeted and ceramic tile in toilet rooms. Finishes in general are in good condition.

Accessible entrances to Town Hall are located on the north and south sides of the building, the north entrance leads to the Library and the parking lot. There is no elevator for accessibility to the public town offices on the second floor. Most rooms do not have accessible compliant door hardware, signage, or drinking fountain.

The majority of the town offices are crowded, and storage is limited within each department. The Town accountant, building commissioner and the IT department occupy extremely small and confined spaces. The building commissioner is separated from his inspectors and administrative assistant, who are located in the selectmen's office. The accountant's office proximity serves as a Town Hall directional hub which causes constant interruptions to his daily tasks. The IT department is extremely overcrowded for the number of people trying to work in that space. The clerk/treasure/collector's office is an all-in-one operation with the staff being called upon to share departmental duties, which at times, detract from their given assignments. The benefit's manager's office is separated from the selectman's office, to which she reports to. Limited file storage is a problem through-out the Town Hall, experienced by all departments. A majority of the Town Offices' archive and general storage are located in the basement. A sump pump and a dehumidifier are present in the basement to minimize moisture. Yet moisture and paper records are not a good combination for long term record/archive storage. The archive storage is organized yet the retrieval of records can be difficult at times.

CONCLUSIONS:

Some Town Hall offices are overcrowded or have minimal space (IT, accountant, building) and file storage space is minimal. Related department adjacencies could be improved for better efficiency, the separated building department should occupy the same office, the Town accountant should have a private office away from the public, and benefits should be located with the selectman's office. Public circulation and directional way finding are difficult and could use improvement. Archive record storage in the basement with moisture present will allow for the long term deterioration of records. Overall the building is in good condition. Ongoing and preventative maintenance is evident. Future renovations will require a hazardous material assessment of the building to identify any potential hazardous materials and to ensure the safety of workers involved with its alterations.

Complete accessibility compliance will need to be implemented and corrected if alteration work performed is 30% or more of the full and fair value of the building. Accessible corrections would involve; add lever handle door hardware to all doors, all doorways do not have required clearances, public counters do not all have an accessible area, signage is not compliant, toilets are non-compliant, and the building does not have an elevator for public access to the Second Floor and Basement. Locating an elevator on the exterior of the building would be a viable option, while locating the elevator to the interior of the building would be more difficult and expensive due to required modifications to the structural system, interior circulation, reduction of existing space, and mechanical and electrical services all must be considered in its placement and design.

CODE REVIEW:

The proposed alterations to the building have been reviewed within the provisions of Chapter 34 of the MA Building Code 8th Edition, the International Existing Building Code (IEBC) 2009 and MA Amendments to the IEBC. The method of determining compliance with the existing building code shall be either the Prescriptive Compliance Method (Chapter 3), the Work Area Compliance Method (Chapters 4-12), or the Performance Method (Chapter 13).

The Work Area Compliance Method is selected to achieve code compliance for changes to an existing building because it applies most closely to the alterations and addition proposed for this Study. Work Area Method - Level 3 is applicable where it involves alterations that cover 50% of the aggregate area of the building.

Code compliance includes: the addition of an elevator to serve the work area, the enclosure of existing stairways, automatic sprinkler system by the IEBC, the Dept. of Fire Safety, and MGL c. 148, s. 26G. , full accessibility, egress lighting, a structural evaluation of gravity load-carrying elements, and new elements within the work area complying with applicable provisions of the International Energy Conservation Code (IECC). Any proposed addition though would need to comply with the MA Building Code for new construction.

PROPOSED TOWN HALL ALTERATIONS:

Options were evaluated of the existing Town Hall for continued re-use and to alter spaces to maximize its usefulness within the existing building's footprint square footage or to consider if a building addition would suffice the building's spatial needs. Proposed new floor plan lay-outs are based on the Space Needs Assessment Report which is the ideal square footage needs required by each department. The report

was assembled by a model Town Hall conceptual office configuration, spatial requirements for individual department needs, space needs survey, interviews with town staff and department heads, review of individual space functions and furniture / equipment space requirements, existing functional spaces, and the experience of RAI with other nominal Town Office / Town Hall Facility programming and designs. The proposed lay-outs attempt to accommodate those spatial requirements.

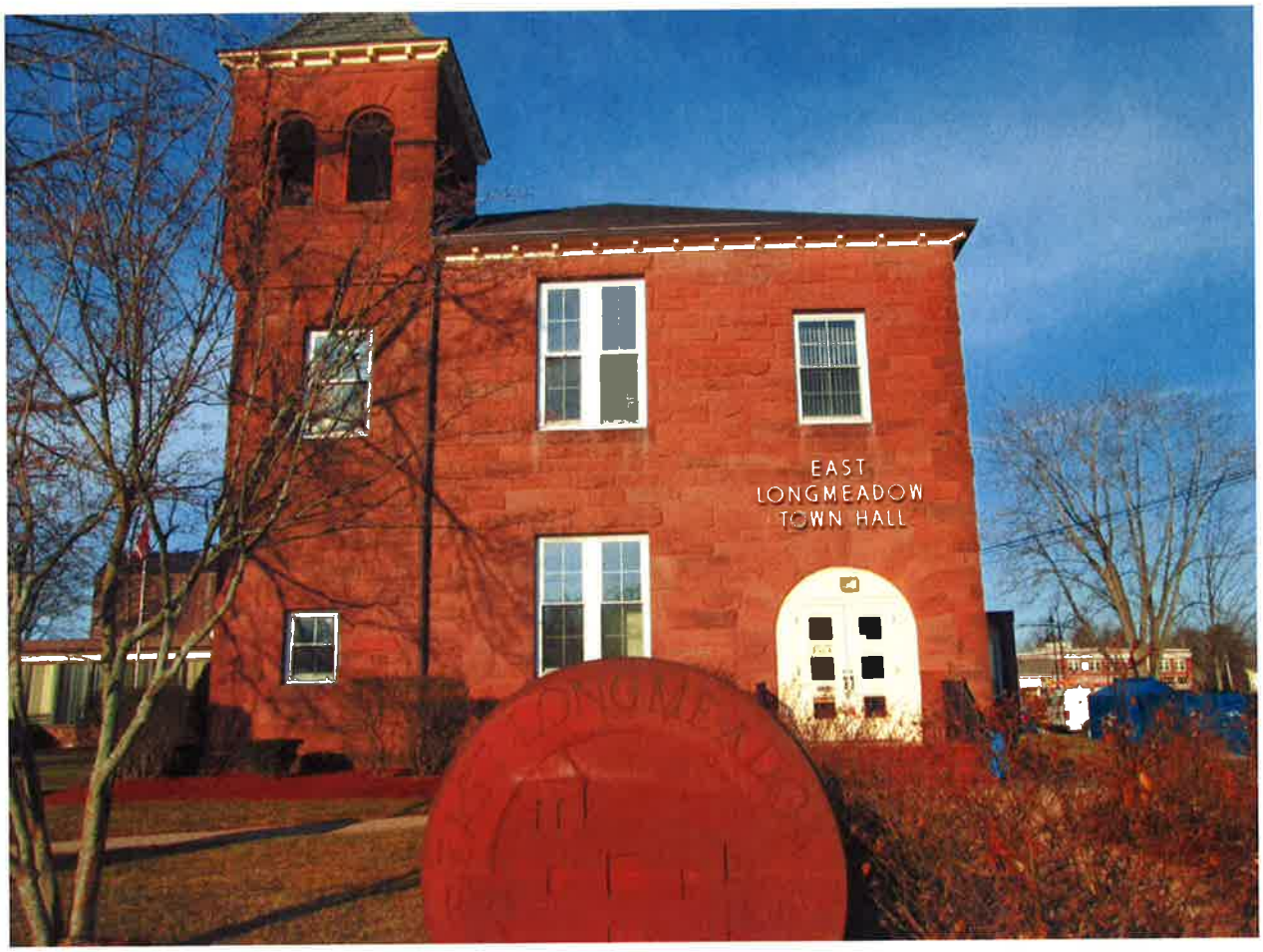
Option 1: The existing square footage of the building as presently configured represents an overcrowded office facility. By redistributing some departments and reconfiguring others, we were able to make better use of the existing building footprint and give needed space to those departments that are most in need. Although redesigning and utilizing the existing building footprint, the redesign does not give adequate space for all departments and does not provide additional space to the departments for any imminent growth, which will not solve the space needs for the future.

A second option was explored involving moving the DPW from the second floor of Town Hall to a new building addition creating a second floor over the existing first floor of the DPW Service Building, located on 84 Somers Road. While this option does free up some space within Town Hall, it only allows space for a couple of departments that do not have adequate space now, and does not satisfy the Space Needs requirements for Town Hall going into the future.

The preferred Option3 involves consideration for a building addition and alterations to existing spaces to accommodate the present and future spatial needs and to comply with applicable codes. As mentioned previously, the alterations and addition will trigger full accessibility for the entire building, and the need for an automatic sprinkler system. A building addition will also require additional parking, as mandated by the zoning ordinances, due to the increase in the gross floor area of the addition. The Planning Board however, may waive the parking requirement by a majority vote, due to unique site conditions. The available parking areas are presently limited and the building addition does not add more occupants at this time.

The proposed Option 3 design achieves more room for some departments, better utilization of space for others, improves efficiency between departments, moves the IT Dept. out of Town Hall, relocates other departments, and makes Town Hall more "user friendly" to the public. The clerk/treasurer/collector's office is moved closer to the main entrance from the parking lot. This relocation of the most heavily visited department will benefit the public by making it easier to find, especially for the elderly residents and reduce some of the traffic through- out Town Hall. The IT staff is relocated to a newly renovated Former Fire Station on 39 Shaker Road for a stand-alone operation. The space vacated by the IT Dept. is utilized by a new clerk's office and benefits manager's office. A new elevator, stairwell, and redesigned accessible toilet rooms make the Town Offices available to all members of the public to transact business.

There is no record of a hazardous material report for Town Hall. Given the building's age, lead paint, and asbestos may exist within the premises. Therefore, a survey of the building to identify any hazardous material must be conducted prior to any renovation or construction work is performed on the building. The report will sample, analyze and determine if and to what amount, HAZMATs are found in the building. If the test results are positive, those materials are required to be abated and removed from the structure before beginning construction to ensure the safety of the workers.



Town Hall Front Entrance

Selectmen's Office

Selectmen's Meeting Room

Building Department

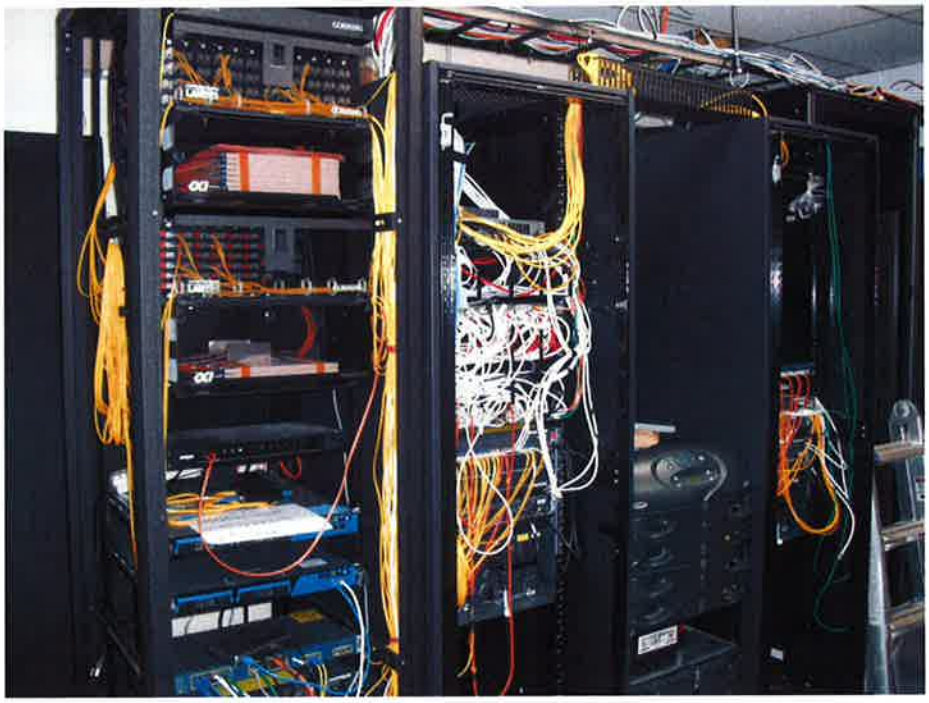
Assessor's Office

Clerk/Treasurer/Collector's Office

Benefit's Manager Office

Accountant's Office

Information Technology Office



Server Room

Planning Department

Engineering & Facilities Office

Department of Public Works

STRUCTURAL EXISTING CONDITIONS:

Two site visits were conducted, however, there was limited access to observe and identify the existing framing systems. The existing structural systems were hidden from view either by the wall finishes, ceiling assemblies, and fixtures within the individual spaces. Despite this, the building shows no signs of structural distress such as differential settlement or overloading. While surveying the structure, there was evidence of water damage to the interior finishes in the stairwell on the Second Floor.

While walking the site, the brownstone masonry appeared to be in good general condition in both the original building and the one story addition. There were a few cracks in the masonry and in a few areas the masonry needs to be repointed. On the north and south sides of the building there was some mold observed at the First Floor level. The stone arch above the window on the east side of the building showed signs of previous repair to the mortar joint at the apex of the arch. The open air bell tower corbels out from the face of the building and extends up to the ridge. Similar to the main building, the tower structure has an asphalt shingled hipped roof. The bell tower appears to be in good general condition. The chimney on the south side of the original building extends approximately 15-feet above the eave and appeared to be in good general condition. However these last two conclusions are based upon observations made from the ground.

As previously mentioned, the condition of what is presumed to be wood floor and roof framing in the original building could not be determined due to the framing systems being concealed from view. The foundation of the 1938 building is stone and rubble and appeared to be in good general condition. The foundation system of the addition is comprised of cast in place concrete walls bearing upon conventional spread footings. The foundation showed no sign of differential settlement and appeared to be in good general condition. The First Floor of the 1966 addition is a concrete slab on grade. The exact exterior wall construction could not be determined without destructive investigation.

CONCLUSIONS:

Without any visual signs of distress, the building's structural systems appear to be in good general condition. A limited amount of the brownstone joints will need to be repointed, however the stone arch will need to have the previous repairs removed and the joint properly fixed in order to avoid water infiltration and assure stability of the arch.

Refer to the International Existing Building Code Review for additional findings and potential remedial measures that may be required based on the proposed building alterations.

CODE REVIEW:

Refer to the International Existing Building Code Review found in Appendix A.

PLUMBING EXISTING CONDITIONS:

The existing building has a 1-1/2" cold water service, this building contains (2) drinking fountains, (7) water closets, (3) mop/service sinks, (8) lavatories, (2) urinals and several hose bibs. The existing sanitary exit is 4"; this pipe is bell and spigot ductile iron pipe. The sanitary waste exists the building several feet above the basement slab, no floor drains are located in the Basement; however there is a sump pit located in the basement that contains a simplex pumping system. The existing storm drainage in the building is a dedicated bell and spigot ductile iron, uninsulated pipe system that drains the flat roof and vertical wall load from adjacent structures totaling approximately 3,452 sq. ft. Minimal condensate drainage has been added to this system. The existing hot water system is provided through the use of an indirect water heater with 50 Gal. of storage, the visible sections of the domestic water pipe is copper tube Type K with little to no pipe insulation. 3" low pressure gas service is run to the building, the service is then split into two (2) independently metered zones, one is presumed to be a dedicated feed to the generator and the remaining is serving the Town Hall domestic water heating and building heating appliances, all of the gas fired heating appliances are condensing direct vented with PVC venting.

RECOMMENDATIONS:

The existing water service should be increased based on the current fixture loads of the building which has exceeded its water service limitations. Ultrasonic test should be considered in several locations to determine the actual internal condition of the storm and sanitary piping prior to committing to reuse of these systems, The domestic hot water piping should be insulated with approximately 1" of insulation depending on materials used to insulate, the cold water and storm drainage pipe should be insulated with ½" of insulation to prevent condensation from occurring on the pipes and deter mold growth.
Several mechanical condensation drains are piped into the sanitary waste system. Good engineering practice requires this type of clean water waste be piped into the storm system to reduce the load on the town municipal wastewater treatment plant. A domestic water heater is located in the Basement that appears to providing non-potable space heating. This unit should be clearly labeled "NON_POTABLE" to prevent future cross contamination issues, further discussion of this unit is described in the HAVC section of the report describes as electric water heater. The sump pump located in the basement does not appear to have any means of backup pump or alarm and there is no backup power source for this system. To prevent future flooding issues the pump should be connected to the emergency generator and a duplex system with an alarm should be considered. The domestic water heater located in the basement serving the domestic water heating is not supplied with an expansion tank; this should be added to the system to increase the longevity of the connected fixtures/equipment. Gas fired equipment is located in the basement has no carbon dioxide detector, and this should be corrected immediately for life safety issues and to meet current code requirements. Several service/mop sinks currently have hose connections on the faucets, these units and any other faucets including hose bibs should be equipped with vacuum

breaker type backflow devices permanently installed in the outlets. Several flush valves are located on toilets in the building and there are no signs of water hammer arrestors in the piping, these should be installed within 20 feet of any automatic valve. Several restrooms contain more than a single water closet/urinal; the code requires a floor drain and a wall hydrant to be installed in these types of restrooms. The service sink located adjacent to the men's room on the second floor shows signs of leaking at the P-trap, a thorough investigation of the existing plumbing drainage system should be conducted of all piping in the existing building based on the age of this building. The water in the men's room on the second floor has a closed front type toilet seat these type of seats are not acceptable for public restroom use, this should be replaced with a hygienic open front type seat

OPTION 2 PHASE 2 ADDITIONAL PLUMBING RECOMMENDATIONS:

Restrooms adjacent to the north main entry: Remove existing fixtures in men's room; revise restroom that will facilitate a wheelchair accessible restroom. Provide a hose bib, floor drain and replace existing water closet, urinal and lavatory with a new water closets, urinal and lavatories. In the adjacent woman's room all of the existing fixtures should be removed and replaced with new fixtures the new layout will accommodate wheel chair accessibility. The new fixtures supplied will be two (2) new water closets, lavatories, hose bib and a floor drain. All new fixtures will be low-flow water saving units. The existing water service in this building should be upgraded to accommodate the new fixtures as previously mentioned in this report. The new Break Room should also include a single bowl sink and this sink should meet the current ADA requirements.

FIRE SUPRESSION EXISTING CONDITIONS:

No fire suppression system has been installed in this building

RECOMMENDATIONS:

Install a new water service into the building that would provide adequate water supply for both fire and domestic water , the water supply would be no less than a 4" water main and larger depending on hydraulic pressure requirements of the suppression system hydraulic calculations. The entire building should be retrofitted for a sprinkler system, the Basement and First Floor should be provided with a wet pipe sprinkler system and the Second Floor including the attic space should be fitted with a dry pipe system. See Fire Alarm section in Electrical Assessment for additional information regarding detection. Currently in the IT Dept., the Server Room has no means of fire suppression. This vital electronic equipment should be protected with an independent Vortex fire suppression package for maximum protection which results in no fire or water damage once activated. An alternative to the Vortex system

that would provide a limited amount of water damage would be a dry Pre-action type suppression system. Vault are subject to the law enacted on May 18, 1995 by the Supervisor of Public Records, that require additional safeguards regarding fire protection, humidity, and media protection.

HVAC EXISTING CONDITIONS:

HVAC: Heat is generated via an existing gas fired Viessmann Vitodens 200 condensing boiler located in the Basement of the building. The boiler appears to be fairly new and in proper working order. Boiler has an input capacity of 230,000 Btu and output of 205,000 Btu. During the replacement of the boiler, hot water piping was replaced with new PEX piping. Piping appeared to be properly insulated as required, with a few minor exceptions. PEX piping was experiencing some sag and drop due to inadequate support; this was primarily observed in the Basement.

An electric water heater used as a secondary source of heat is located adjacent to the Boiler Room, it has been determined that this water heater is present for supplemental building heating. An electric water heater is typically used in domestic water production and therefore it is unusual to see in a heating application. Application was determined based on water piping trim present and confirmation from onsite personnel. During the time of the site evaluation, what was served by this water heater was unable to be determined; however we have been told that this unit serves common area hydronic units.

The majority of the building has supplemental heat by hydronic radiators/unit heaters and fin tube elements. These heating elements appeared to have been recently replaced in most cases, and appear to be the same age as the new boiler.

The Basement has a small Aprilaire dehumidifier with condensate pipe to sanitary connection. This appears to have been a provision added upon demand, and not original to the design of the building. This unit was not operating at the time of this investigation.

Bathroom exhaust fans are apparent in all restrooms throughout the building. Several bathroom exhaust fans were determined to be venting into the current attic space, which did not have a means of heating. The attic has several abandoned hot water pipes and control valves, no active water piping was observed, therefore no provisions for heating are required.

Split system air handling units provide heating, ventilation and cooling to the building. The IT Server Room is served by a 5 ton cooling only Liebert A/C unit (2006), which was described to have spare capacity for Server Room growth. Four (4) other air handling units serve the remainder of the building, including a 4 ton cooling only serving the Clerk's Office (1996), a 10 ton heating/cooling unit serving the

First Floor (1995), a 2 ton cooling only unit serving the DPW Office (2007) and a 1.5 ton cooling only serving the DPW Superintendant's Office (2006). Ventilation air is provided through direct intake to these unit's return ducts. The useful life of a split system cooling only or cooling/heating air handling unit is approximately 20 years. The 10 ton unit is set up for multi-zone use as a bypass system, allowing air from systems not calling for cooling to be isolated, and the air to re-circulate through the system without tempering any space.

Building has several locations that suggested a complete building management system; however the master controller was not located. Maintenance personnel later confirmed that where a complete BMS system was not incorporated and there are several heating elements on standalone control, however an overall system monitoring was put in.

RECOMMENDATIONS:

Based on the proposed addition under Option 2 - Phase 2 an additional 1,680 sq. ft. of office space is being proposed. The addition of an elevator is being included in the north end of the building and re-zoning is being established throughout the building. Occupancies have not changed in the building, nor will the general use of the space. Documentation shows that the existing two Trane systems serving the majority of the building on the First and Second Floors were installed in 1995 and 1996 making these units approximately 18 years of age. During the site investigation it is believed that the unit located on the Second Floor space is a newer system based on observation. Where the useful life expectancy of these units is about 20 years we would recommend replacement of the unit on the First Floor. Ductwork and the location of the units will remain, re-distribution of air throughout the building will be limited to branch ductwork. As a result the existing ductwork will need to be detailed as closely as possible during the design phase to maximize the amount able to be re-used. Also the smaller split system serving the Conference Room on the Second Floor will need to be relocated based on the new building layout.

Heat loss/gain calculations will need to be conducted on the 1,680 sq. ft. addition to determine the size of new equipment to be provided. New units should consist of a dedicated outdoor air system for ventilation and several split systems located in each of the conference rooms and a ducted split system to serve the Building Department and Commissioner's Office. The existing baseboard on the current exterior wall, where the proposed addition will be located, will need to be relocated to the new exterior walls. HVAC requirements will conform to the current International Mechanical and International Energy Conservation Codes.

The current boiler heating system is relatively new and meets current mechanical and energy codes. Heat loss calculations would be needed to determine if this boiler has capacity for future expansion, however

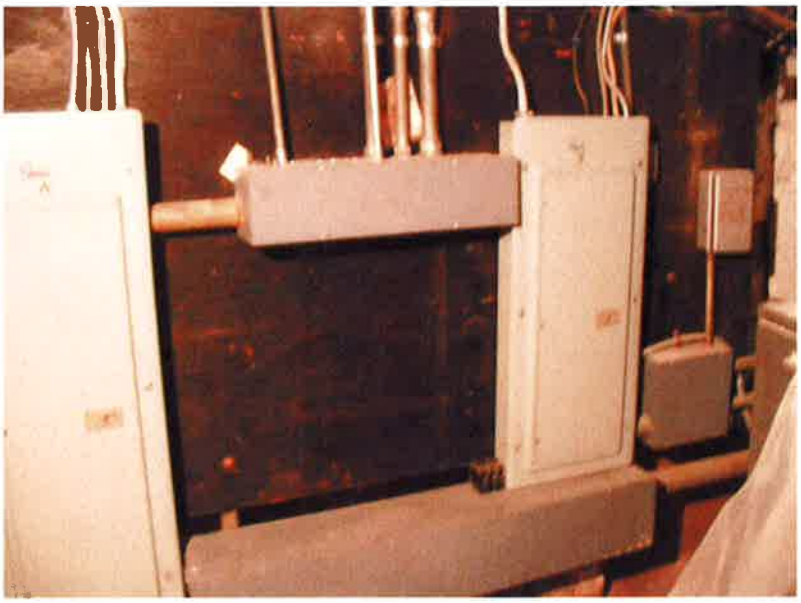
the system is currently sized for approximately 23.1 Btu/sq. ft. and is being used for supplemental heat only. Concerns with dehumidification in the basement were discussed, the current system was an afterthought installed due to heavy rains and backup water through cleanouts. Additional means for dehumidification will be required.

ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The service consists of a Federal Specific 1200A 120/208 rated assembly. The assembly is comprised of main 1200A section, CT compartment, and distribution section with breakers ranging from 20A to 400A. Sub panels are fed from the main service to include a 200A feed to the prior main service panels located in the Basement. The Federal Specific main service is operational but is obsolete and replacement components are difficult to obtain. Replacement of the main service may be necessary depending on the renovations and/or additions. The present arrangement greatly limits the ability to expand the distribution system which is necessary for any renovation or expansion. Many of the components of the sub-panels are obsolete and show sign of degradation. In addition the sub-panels are lacking circuit capacity for the most part, which would allow isolation for critical equipment. The present circuit capacity is limited and does not allow proper isolation which would reduce nuisance tripping. The present location of these sub-panels may not meet the present code concerning clearances and would have to be relocated to meet the new criteria. There have been some upgrades to the distribution system through the installation of new distribution panels. The existing wiring methods consist of mainly conduit and wire to main panels and metal clad cables with non-metallic cable (Romex) for branch wiring to the final loads. The facility is limited in the amount of outlets to isolate equipment and areas. Isolation is needed to eliminate the nuisance tripping of circuits in one department that may affect other departments. A minimum number of power outlets are available and many work stations are serviced by extension cords. Many offices and department share the same circuits. Emergency power is limited to the Main Telecommunications' Room only. Two generators are installed to serve this room, one 20KW Kohler and one 30KW Onan.

Existing Main Service



Sub-Panels Town Hall Basement

Ungrounded Electrical Reciprocal

LIGHTING:

The majority of the lighting consists of recessed and surface mounted florescent fixtures. The lamping consist of T8 technology. Several existing fixtures present safety concerns due to exposed lamps, missing lenses, and poor supports. Several areas have incandescent fixtures with screw in type fluorescent lamps. Most of the lighting is adequate; however, the present lighting is not the most efficient type of lighting available. Emergency/egress lighting consists of battery packs, exit signs and remote heads.

Surface Mounted Lighting

Semi-recessed Lighting

Battery Powered Exit Sign and Emergency Lights

FIRE ALARM:

The fire alarm system is a Fire Lite MS-9200UD addressable system. The building has minimum smoke detection covers. The notification system is localized and appears to be horn/strobe type. Bathrooms are not equipped with notification devices. Manual pull stations are located at some of the exit doors.

Fire Alarm Panel

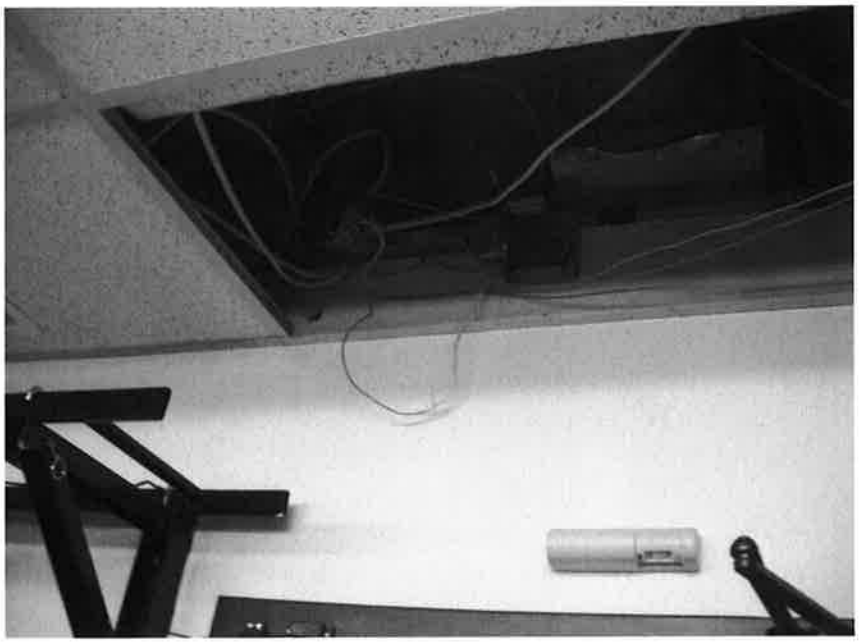
TELECOMMUNICATION:

Telecommunications center for the Town is housed in the main IT Room located in the Town Hall. The IT main MDF room is cramped and lack any ability to expand. Climate control for the main MDF is accomplished via an in room Liebert Unit. The IT room is backed-up by two generators to power the main rack system, and Liebert unit. Several IDF or telecommunications racks are located throughout the building, some not in areas with climate control. The present system does not comply with the Electronic Industries Alliances (EIA)/Telecommunication Industry Association (TIA) standards which should be met as a result of any renovation. The central telephone service equipment is located in the Basement and is distributed via homerun cabling to each office phone location. The data/ network and phone infrastructure is distributed via exposed cable with make shift supports. Most occupied areas are equipped with some Tel/Data.

RECOMMENDATIONS

SERVICE AND DISTRIBUTION SYSTEMS:

The distribution system will require updates and re-arrangement to accommodate the proposed renovation and to solve deficiencies mentioned above. Additional outlets should be added to eliminate the need for extensive amount of extension cords. Many of the branch circuit cables are not supported properly nor recommended for commercial installations. These branch circuits will have to be replaced and supported properly to accommodate the renovations to comply with the Massachusetts Electrical Code.



Existing Improper Wiring

LIGHTING:

Upgrade of lighting to more efficient and the introduction of lighting controls to reduce the energy consumption should be considered with the availability of rebates from the utility. The present lighting layout may not accommodate the proposed renovation and/or addition and will have to be replaced.

Existing Light Fixture

Emergency/Egress lighting appears for the most part meets the requirement of the Life Safety Code. The present installation will have to be modified to accommodate the proposed renovations and/or additions.

FIRE ALARM:

The present Fire alarm system will have to be modified and/or rearrange to meet ADA and layout changes associated with the renovation and/or additions.

TELECOMMUNICATION:

The telecommunication systems should be upgraded to meet the demands of any renovation. Proper MDF and IDF rooms should be established to protect the equipment. Additional telecommunication drops are needed to eliminate the need for draping cables across the floor and walls.

RECOMMENDATION BUDGETS:

See Project Budgets Section, Option 2 for Town Hall budget.

PROPERTY CONDITION ASSESSMENT

PUBLIC LIBRARY

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The Public Library is a two story building which contains on the first floor a lobby, circulation desk, work and administration areas, conference room, meeting room, children's stacks, story/craft room, and an entrance arcade. The second floor has the adult stacks, reference, periodicals, reading room, study rooms, and local history. The Library was built in 2004 south of and connected by a fire door to the Town Hall. The Library is located at 60 Center Square, East Longmeadow, MA. The building is 19,302 SF, shares a lot with Town Hall that is 1.48 acres, and the lot is zoned Business.

ARCHITECTURAL EXISTING CONDITIONS:

The Library is made of brick veneer, insulated metal panels, copper wall shingles, stone and metal trim. The main building has a flat EPDM membrane roof and a series of small curved roofs along the service courtyard that are made of copper shingles. Entry doors are aluminum storefront, services doors are metal, and windows are clad wood. A large skylight offers natural light into the interior of the Library. The first floor concrete slab on grade has a significant crack running north and south through the children's area, possibly resulting from movement at an expansion joint or a construction joint. Overall the building is in good condition.

RECOMMENDATIONS:

The Library is a recently constructed building and doesn't show many signs of wear. The floor slab mentioned above would be an item requiring repair to avoid a potential tripping hazard.

PLUMBING EXISTING CONDITIONS:

The existing building is served by a 2" cold water entrance located in the boiler room, the fixtures located in the building are (7) water closets, (7) lavatories, (1) water cooler, (2) mop sinks and (4) kitchen type faucets. Based on the current fixture load this water supply is adequate for the current load and has a limited amount of water available for future expansion. The sanitary exit out of the building is a 4" pipe. Based on the fixture load listed above the sanitary is of sufficient size to accommodate the current fixture load and a reasonable amount of future expansion.
An 8" roof storm drain serves the flat part of the roof drainage system, the remaining sections occur on the slopped roof sections and are collected with downspouts outside of the building, The flat roof has a storm drainage load of approximately 7500 SF. The pipe size has been sized adequately.
The gas service for this building supplies (6) airside HVAC units, a heating boiler and an atmospheric water heater. The total gas load on the building is 1541 MBH; the service is adequate for its current load.

RECOMMENDATIONS:

A sink located in the work room has a significant amount of arts and craft supplies located under the sink. If this area is used on a frequent basis, it is advised a plaster trap be installed to prevent waste backup in the sanitary piping system. There are several lavatories located in the building that have been designed to be wheelchair accessible, however no protective pipe covering have been installed on the piping below the fixtures , this should be provided to prevent both damage to the piping and personal injury of the occupant. There are two (2) janitor closets located in the building, the first floor unit has a large quantity of chemicals used by the profession located in the room, and an emergency eye/face wash should be provided in this room. A drinking fountain is located in the entry, this unit is a wheelchair accessible unit, however the button that activate the unit is in disrepair, this button should be replaced. The domestic hot water system does not contain an expansion tank, the piping configuration of the tempering valve is incorrect, the temperature setting of the aquastat controlling the hot water recirculation system is set incorrectly, and the gas fired water heater efficiently drops rapidly over time due to the buildup of contaminant on the bottom of the tank, Should the library ever decide to upgrade to more energy efficient mechanical equipment we suggest that the water heater be replaced with a indirect stainless steel water heater. The domestic hot water recirculation pump aquastat has been set to a higher temperature then the mixing valve. By setting the temperature higher than the valve the pump will never satisfy the set point causing the pump to run constantly. This defeats the original design of the aquastat and will result in added energy consumption and reduced lifespan of the domestic hot water recirculation

system. Additionally, the domestic hot water recirculation pump is piped incorrectly, No bypass has been provided to the cold water supply of the mixing valve.

FIRE SUPRESSION EXISTING CONDITIONS:

A 6" fire water service penetrates the mechanical room floor and reduces to a 4". The 4" fire suppression riser serves the entire building. The fire suppression system has integrated circuits that are connected to the fire alarm system (see Fire Alarm Section.)

RECOMMENDATIONS:

NFPA13 requires a design placard to be located on the sprinkler riser. There was no evidence that this sign was ever installed. The installing sprinkler contractor should be contracted for this information and a sign should be installed. The sprinkler systems require annual testing of the backflow device at full flow, the current piping arrangement does not allow for full flow testing of the backflow device. No sprinkler has been located below the ceiling in the mini kitchen located under Stair #2; this would not allow the fire suppression to extinguish the fire in this area. A sprinkler should be placed below that ceiling.
The mechanical room has sprinklers installed above the duct work but not below. The size of these obstructions requires a sprinkler head to be located below the duct. Sprinklers should be installed below duct in this area.

HVAC EXISTING CONDITIONS:

The building is currently provided with heating, ventilation and air conditioning by six (6) packaged rooftop units with gas fired furnaces and DX cooling coils. Supplementary heating is also provided around the perimeter of the building through baseboard elements in response to the amount of windows in the building. Baseboard is supplied heating hot water from a boiler; Weil McLain Model PFG-6 with gas input of 305,000 Btu and output of 247,000 Btu, in the boiler room. Hydronic baseboard appeared to be fairly new and in good condition. Bathrooms were ventilated through the use of a single roof mounted exhaust fan.

Rooftop units are all original to the building and have a date of manufacturer in 2003. Units are divided to serve separate zones of the building based on demand and occupancy requirements. Sizing varied between the rooftop units labeled RTU-1 thru RTU-6 and are sized at 7.5 tons, 6 tons, 3 tons, 10 tons, 15 tons and 15 tons respectively. A full heat loss/gain calculation would be required to determine adequate sizing of the units, however while on site the spaces were at a comfortable temperature. Several spaces

were noted to have space setpoint temperatures above what would be considered an industry standard, however these spaces were determined to be able to maintain these higher temperatures (heating).

The History Room is a collection of many documents including items to be perceived of historical value. The room, unlike the remainder of the building, did not have supplemental hydronic baseboard heating. While in the space the temperature was comfortable and comparable with the adjacent spaces. No baseboard heating is required, nor should it be included as this space requires humidity control for the storage of the documents in the room. The room is also equipped with an Armstrong EHU-700 series humidifier; independent control of this system is present in the History Room. No independent space temperature control is present in this space.

RECOMMENDATIONS:

Equipment in the building appears to have all been installed in the last 10 years, the rooftop units have a date of manufacture of 4/7/2003 per the manufacturer. Typical life expectancy of a package gas/DX rooftop unit is between 10-15 years. Maintenance has been kept up to date and rooftop units are in very good condition for their age. Ventilation rates throughout the building will need to be reviewed and brought up to current code at the time of rooftop unit replacement. As the usage of the space has not changed, ductwork distribution most likely will be able to remain. For future expansion additional packaged gas/DX rooftop units can be added for addition loads.

The boiler appears to be in proper working order, however the boiler is a gas fired cast iron with lower efficiency then current code allows, and is subject to thermal shock. We recommend the replacement of the boiler with a new gas fired condensing type boiler system, sized to allow for the current space load requirements. A newer condensing type boiler will save on energy costs, and with modulating firing control, allow for better temperature control. Also as a result of the usage of the space as well as the number of people occupying the space, energy recovery ventilators could be incorporated for additional energy savings.

ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The Service consists of a Square-D 1000A 120/208 rated assembly. The assembly is comprised Main 1000A I-line panel with breakers ranging from 100A to 400A, CT compartment, and distribution panels. Majority of the panels are located in the main electrical room. The power distribution system is adequate and meets present codes. The existing wiring methods consist of mainly conduit and wire to main panels and conduit and metal clad cables for branch wiring to the final loads. The quantity and distribution of general power outlets are adequate and meet present codes.

Existing Main Service

LIGHTING:

The Library lighting consists of a variety of lighting types and layouts. The types include but are not limited to recessed, surface, pendant indirect, recess direct stack lighting, track lighting, and wall mounted direct and indirect. The layouts and lighting levels appear to meet the present codes for quality and levels. Emergency/egress lighting consists of battery packs, exit signs and remote heads.

Surface Mounted Direct and Indirect Lighting

Battery Powered Exit Sign and Emergency Lights

FIRE ALARM:

The fire alarm system is a Notifier AFP-200 addressable system with voice. The building has minimum smoke detection covers due to being fully sprinklered. The notification system is localized and appears to be speaker/strobe type. Bathrooms are equipped with notification devices. Manual pull stations are located at each exit doors.

RECOMMENDATIONS

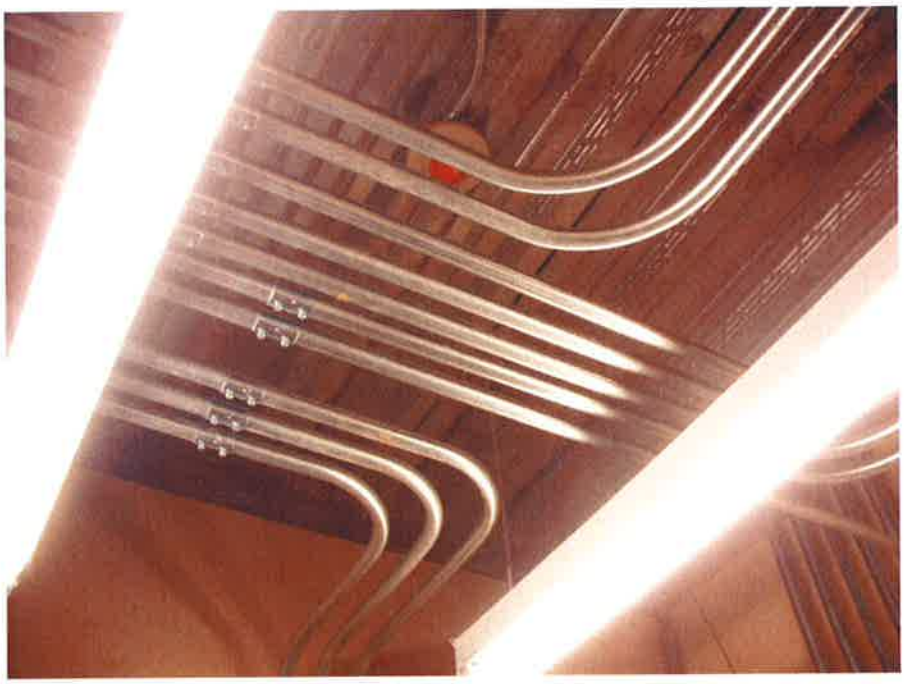
LIGHTING:

Some lenses are missing and exposed lamping is present, especially near kitchen equipment. These fixtures should be repaired.

Existing Light Fixture

FIRE ALARM:

Electrical room smoke detector still has dust cover installed and the cover should be removed.



Fire Alarm Pull Station

RECOMMENDATION BUDGETS:

Plumbing recommendations estimated cost: $10,500, indirect water heater option ($4,200)
Fire supression recommendations estimated cost: $7,000
HVAC recommendations estimated cost: $10,000..

PROPERTY CONDITION ASSESSMENT

PLEASANTVIEW SENIOR CENTER

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The East Longmeadow Senior Center is located in a former elementary school building. It is a one story brick building with a mechanical equipment mezzanine and a partial basement also with mechanical equipment. The Center shares space with the Town's Recreation Department. Among the Center's spaces are administration, game room, art activities, conference room, veteran's office, computer/activity room, multi-purpose room, exercise room, nurse's suite, kitchen, restrooms and storage. The original school was built in 1940 and a rear addition was built in 1954. The Senior Center is located at 328 Main Street, East Longmeadow, MA. The building is14,446 SF, sits on 3.75 acres and is zoned Commercial.

ARCHITECTURAL EXISTING CONDITIONS:

The former school has a brick façade, a front hip roof with two shed dormers, two ventilating cupolas, and deep roof overhangs supported by decorative wood brackets. The front roof has at 10 year old shingles and the rear roof is a flat five (5) year old EPDM membrane. The original structure is wood framed roof rafters, girders and wood trusses. The addition has wood roof framing on steel trusses. Some of the brickwork needs repointing, but minimal. Windows are large aluminum, insulated replacement units. Entry doors are aluminum storefront. The rear of the building has a porch with a handicapped ramp and loading dock, supported by PVC columns. Interior finishes are in excellent shape due to recent renovations by the Town for the Center's occupancy. The condition of the building overall is very good.

RECOMMENDATIONS:

The Recreation Department occupies the northeast corner of the building. Their office is cramped and the storage of athletic equipment is inadequate. One option is to move the Recreation Department to the new Pine Knoll Administration Building on 1174 Allen Street. This will give the Rec. Dept. more room and allow the Senior Center to include activities they are unable to perform presently.

Senior Center

PLUMBING EXISTING CONDITIONS

An existing 3" gas main serves the domestic water heating, space heating and a commercial kitchen. The service is currently meeting the existing loads. The domestic water supply is 2" and based on the current loads is adequate. A 4" sanitary main serves the building and a duplex sewage ejector is located in the basement serving fixtures that drain below the invert of the sanitary exit. A point of use grease trap is located at several fixtures in the kitchen, meeting the plumbing code requirements for grease laden waste. There is an internal storm piping system located in the building. The storm system serves (4) roof drains, actual size of storm service leaving the building was not located and plans of the system were not available at the time of survey.

RECOMMENDATIONS:

The existing gas service is acceptable for the current load. If additional load is to be added on the system then the gas service supplier should be consulted with the current loads and any additional load to verify that the municipal gas main has adequate pressure and volume to host this additional load. Regardless of municipal pressure any additional gas equipment will be required to be verified against current pipe size or piped as an independent branch back to the gas service entrance. The water supply is acceptable for

the current loads and a limited amount for expansion. If additional flush valves are added to the system a complete survey of the domestic water system should be considered. The hot water system is meeting the current load. Annual testing of the water tempering equipment should be conducted in this type of occupancy with a commercial kitchen requiring high water temperatures. Consult with water/sewer purveyor to verify that an external grease trap is not required in addition to internal interceptors. No plans were available to verify if external tank was installed. In the event of an addition that would add additional roof load to the storm drainage system the existing size of mains would need to be documented possibly requiring non-destructive scope service.

FIRE SUPPRESION EXISTING CONDITIONS:

The fire service is 6" with a dry pipe system that covers the entire building. The commercial kitchen is protected by a dedicated chemical Ansul fire suppression system.

RECOMMENDATIONS:

The fire suppression dry pipe distribution system condition should be checked annually to verify pipe integrity and system leak. Down times between compressor cycles should be noted during testing.

HVAC EXISTING CONDITIONS:

Building HVAC system is comprised of a hydro air system utilizing hot water heating and DX cooling in three (3) air handling units, 6 tons each, located in the attic space and a fourth air handling unit, 15 tons, located in a mechanical storage closet on the main floor. The outdoor DX condensing units for the three air handling units in the attic are located on the roof, elevated by 2x4 sleepers. The fourth condensing unit is located behind a fence on grade at the rear of the building. The lower condensing unit is a dual compressor with two refrigerant circuits for part load demand.

Ductwork in the attic is distributed to the perimeter zones of the building. Units are designed to be a change over bypass system. Branch lines have motorized dampers with electronic actuators, interlocked with space temperature sensors to supply air upon demand. As the motorized dampers close, excess air is bypassed back to the return side of the units. Heating and cooling availability is switched on a manual changeover. Outdoor air ventilation is brought into the units through sidewall louvers ducted to the return of the air handling system.

Heating hot water is generated by a dual fuel 9 section cast iron steam boiler, Weil McLain Model 88. Steam passes through a shell and tube heat exchanger to transfer the heat from steam to hot water. Steam condensate drains into a receiver and is pumped back to the boiler. Steam is delivered to the heat

exchanger through 2 automatic control valves, with a bypass, to maintain supply water temperature control. Hot water is pumped through the building to hot water coils located in the four (4) air handling units. Boiler is located on a 6" concrete pad, and based on visual observation of rust residue of the concrete pad; this boiler has a history of leaking sections. No water was observed on the floor and therefore it is believed that the boiler is currently holding water and pressure. The boiler has a replacement Industrial Combustion burner associated, installed to convert from oil fired to dual fuel. Oil storage tanks are located in a separate room in the basement which contains the fire service. These storage tanks were all empty during this site investigation and are available as a back-up source only. Proper emergency shut off for oil fired burning appliances was present at the entry to the boiler room.

There is a full commercial kitchen with grease exhaust hood over the range and make-up air unit. Grease exhaust hood has a fully automated fire protection system which should be interlocked with the exhaust fan and make-up air unit. Men's and Women's restrooms have independent exhaust fans located on the roof. Four exhaust fans total were located on the roof, as ventilation outdoor air is taken from sidewall intake louvers located in the attic and no exhaust was obvious, it is assumed that the additional fans are servicing ventilation and space pressure equalization. There is also a gravity intake louver located roughly over the kitchen. Usage of this piece of equipment has not been determined.

RECOMMENDATIONS:

No work is required for the air handling equipment. All units look relatively new and have been well maintained.

The existing boiler appears to be very old and is nearing the end of its useful life expectancy, evidence of boiler failure as observed on the floor confirms that this boiler has been repaired. Though the control valves as well as the shell and tube heat exchanger are relatively new we recommend replacement of the steam components in this system with new condensing type boiler(s) sized to handle the demand of the building. New boilers will be tied directly into the existing hydronic side of the system. Existing steam components would need to be removed in their entirety.

ELECTRICAL EXISTING CONDITIONS

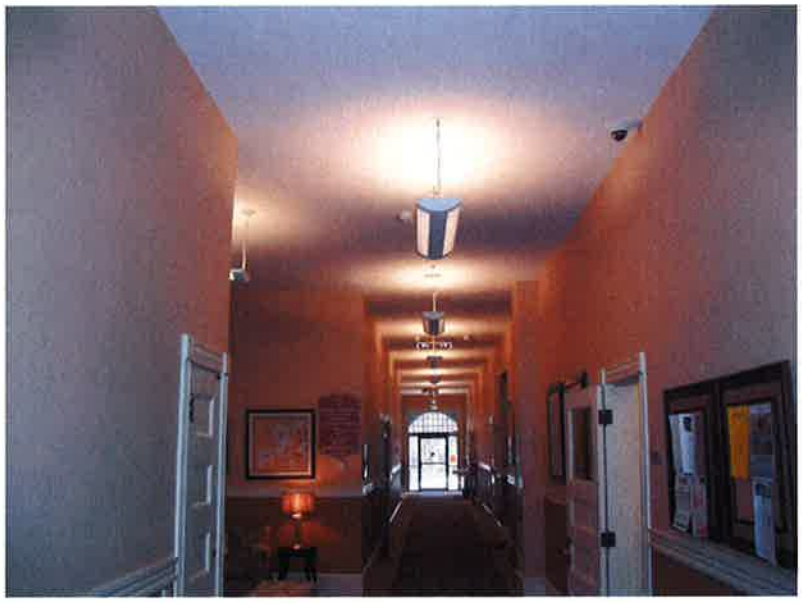
SERVICE AND DISTRIBUTION:

The service consists of a Siemens 400A 120/208 Main Breaker enclosure fed from a direct 320A meter socket. The Main Breaker enclosure feeds main panels in the basement which distribute power throughout several panels located throughout the facility. The power distribution system is adequate and meets present codes. The existing wiring methods consist of mainly conduit and wire to main panels and

conduit and metal clad cables for branch wiring to the final loads. The quantity and distribution of General power outlets are adequate and meet present codes.

LIGHTING:

The lighting consists of a variety of lighting types and layouts. The types include but are not limited to recessed, surface, pendant indirect. The layouts and lighting levels appear to meet the present codes for quality and levels with the exception of the main corridor lighting which appears lacking on the vertical levels which appear dark. Emergency/egress lighting consists of battery packs, exit signs and remote heads.



Corridor Indirect Lighting

FIRE ALARM:

The fire alarm system is an Edwards's addressable system. The fire alarm system appears to meet present codes.

RECOMMENDATIONS

LIGHTING:

Additional wall scones should be added to increase the vertical lighting level on the corridor.

RECOMMENDATION BUDGETS:

Plumbing recommendations estimated cost: $20,200 (if boilers are replaced).

HVAC recommendations estimated cost: $75,000.

Electrical recommendations estimated cost: $5,000.

PROPERTY CONDITION ASSESSMENT

DEPARTMENT of PUBLIC WORKS

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The Department of Public Works (DPW) complex consists of the Service Building, Vehicle Storage Building, Salt Shed, Sign/Paint Shop, and Small Equipment Storage Building. The main building is the Service Building, which houses on the first level, the director's office, administration area, lunch room, locker /shower room, parts/tool storage, and six (6) vehicle service bays. The second level has additional parts storage and a small foreman's office. The DPW is located at 84 Somers Road, East Longmeadow, MA, occupies 2.64 acres, and is zoned Residence A.

ARCHITECTURAL EXISTING CONDITIONS:

The building is made of brick and block masonry with a pre-engineered 3- bay service garage that was added on to the rear at a later date. The roof structure is a flat wood deck supported by steel beams and purlins resting on masonry bearing walls. The roof covering is a six (6) year old, single-ply membrane. The service garage has a concrete slab on grade, with insulated, overhead, motor operated doors and single pane metal windows. The building has a vehicle lift, vehicle exhaust system and a manual chain hoist. The Vehicle Storage building is a 4-bay pre-engineered metal building with insulated metal overhead doors. The Salt Shed is wooden domed, asphalt shingled, and concrete base structure with a large front opening. Sign/Paint Shop is a concrete block building with a flat roof. The Small Equipment Storage Building is a pre-engineered metal, gabled roof, 7-bay building.

RECOMMENDATIONS:

The DPW buildings are generally in good shape. The Main Service Building's parts and storage areas are limited, and their retrieval and inventory are made difficult by them being in different areas of the building. The foreman's office is extremely small and its location is separated from the workers that he supervises. It is suggested by the staff, that two service bays be added to each garage building to allow better vehicle maintenance and to be able to service more vehicles out of the weather.

Main Service Building

Service Building Garage

Vehicle Storage Garage

Salt Shed

Sign/Paint Shop

Small Equipment Storage

PLUMBING EXISTING CONDITIONS:

There are (5) buildings located on the premises of this site a Service Garage, Vehicle Storage Garage, Sign/Painting Garage, Salt Shed and a Small Equipment Storage Building .

2" water service has been supplied to the Service Garage; this water supply is sufficient to meet the current building needs, no other building on the property appeared to have water service, based on the current amount of plumbing fixtures installed. The water service for the Service Garage Building has some room for future loads to be added to the domestic water system,

Sanitary waste has also been established in the Service Garage; there were no plans available to extract the size of the underground sanitary and storm drainage serving this building, based on current code no sanitary may exit the building in less than 4", this would allow for a reasonable amount of future expansion. The garage has a dedicated waste system and containment tank serving the garage floor drains for the containment of any oils that may be inadvertently drained. The size of the underground containment tank is estimated to be approximately 10,000 gallons. No other building on the premise has a sanitary waste service. A 1-1/2" natural gas service has been installed in the Service Garage this is utilized for water and space heating. 1" gas service has been provided in the Sign/Painting Garage for space heating only and no other building on the premises has a gas service into the building. Storm drainage has been utilized to drain the flat roof of the Service Garage; the remaining buildings on the property are sloped roofs that drain to grade.

RECOMMENDATIONS:

The Service and Sign/Paint Garages gas supplies are not currently sized to accommodate any significant loads to the system and should be upgraded in the event of any additional load. The Service Garage utilizes an 80 gal. gas fired water heater and in the event the heating boiler is upgraded to a condensing boiler the load should be revised to accommodate an indirect stainless steel water heater; this would increase the overall efficiency and longevity of the equipment. The current piping arrangement does not include an expansion tank; this should also be added to the system. Several hose bibs, hydrants and service sinks are equipped with hose connections and no backflow prevention has been provided on these types of connections. These types of connections should be supplied with atmospheric vacuum breakers. Additionally there is a water supply with a simple Watts series 9d backflow located near what appears to be 50 gal. barrel of degreaser type chemicals; this type of backflow device is not sufficient for this type of protection a reduced pressure backflow device (RPZ) should be installed in this type of use. A sanitary waste/vent located in the boiler room appears to be removed and open to air, this should be capped air tight on the sanitary side to prevent sewer gasses from entering the building. The 80 gallon gas fired water heater located in the boiler room is venting in to a common flue that is also serving an oil fired boiler; this is not acceptable per current code, relocate a new vent directly up through the roof or

consider installing the indirect water heater as described above. Flush valves, washing machines and other items that have automatic fast closing valves require a water hammer arrestor to be located within 20' of the valve; these should be installed to prevent excessive water hammer on the piping system. A large quantity of waste oil tanks has been installed to add additional storage to the waste oil burner/supplemental heating system. No evidence of a permit was displayed on the wall in the area of the storage. The fire department should be consulted for a permit or copy of the permit to store a volume of oil exceeding 5 gal. The waste oil volume should also be considered when emptying the under-grade containment tank, in no case should the level of the remaining volume of the containment tank be less than the amount of waste oil stored or an additional containment barrier should be built at these tanks.

EXISTING FIRE SUPRESSION CONDITIONS:

No fire suppression system is installed in any of the buildings on the premises

RECOMMENDATIONS:

Wet pipe fire systems should be considered to be added to the service garage to protect life and property. And dry pipe systems should be considered in the remaining buildings excluding the salt shed.

HVAC EXISTING CONDITIONS:

The site consists of five (5) buildings, two of which are service/parking garages and three buildings are storage areas for all DPW equipment and materials. The main service building also had a number of offices, a locker room and cafeteria area. Of the three storage areas, one building was primarily open storage for a road salt mixture under a canopy; HVAC analysis is not required of this building as it seems to be continuously exposed to exterior elements.

The largest building on site referred to as the Main Service Building had several garage bays, used for the repair and maintenance of vehicles. Both gasoline and diesel engines are serviced in these areas. Garages are equipped with five (5) hydronic unit heaters. Unit heaters in the garage service areas appear old, but in working condition. There is also a Clean Burn waste oil unit heater, which appears to be fairly new, and is located in the main garage space with waste oil storage tanks located adjacent to it. A divider wall is located to section the garage into two different areas. The first area appears to be primarily used for daily activities, repairs and maintenance, and the adjacent space looks to be used for storage. Both

areas are heated, and two (2) exhaust fans are present for ventilation of the space, no make-up air louvers or grilles were observed during this site visit. Fans were operated via a manually operated switch at the user's discretion and maintenance personnel open the garage bay doors to maintain space pressure. No CO or No2 detection was present in any of the buildings. The service side of the garage has a vehicle exhaust system with hose connections which vent directly to the exterior.

Heating hot water is generated by an oil fired cast iron sectional boiler; HB Smith 19 series 11 with output of 1,063,000 Btu. The T&P relief valve has been recently replaced as well as the system pumps and the expansion tanks. Installations look acceptable with the exception of the expansion tanks which were inadequately supported and move freely. The existing oil supply line, originally encased in concrete, is creating a tripping hazard as the concrete is deteriorating. A recent oil leak/spill was observed based on the condition of the floor and absorptive material spread around. Valves were not tested, however due to age and condition it is possible that they are frozen in the current positions. Combustion and make-up air is through a high and low opening on the exterior wall door. No dampers were present on these openings to close them off while the boiler is not firing, and no unit heater was present in the boiler room to protect piping or incoming water service from freezing. Neither the boiler venting nor newer piping in the boiler room is insulated. The venting for the oil fired boiler is venting into the same chimney stack as the gas fired domestic water heater. This can cause an acidic build up which will compromise the lining of the chimney.

Ventilation in the Service Building does not appear to comply with current codes. A small exhaust register is located in the kitchen space above the microwave. The restroom between the office space and the boiler room was not ventilated, and no air movement was present in the storage area on the second floor.

The out buildings were primarily storage buildings. The first building which will be referred to as the Vehicle Storage Garage was primarily open garage bays for parking larger vehicles while not operating. No maintenance or service was present or appeared to be done in this space. Exhaust was again through a manually operated exhaust fan located in the back of the building, no relief was observed at the time of this investigation.

Of the remaining three storage areas, the Salt Barn is open to exterior elements and therefore has no use of an HVAC system. The Sign/Paint Shop appears to be used on a regular basis, as a small office was observed in the back of the building. Heating is provided by a gas fired furnace with input of 352,000 BTU, unit appears to be roughly 20 years old based on visible condition. Typical life expectancy of a gas fired furnace is 20 years, and based on the condition this unit is nearing the end of its useful life expectancy. The last building which will be referred to as the Small Equipment Storage did not have conditioning or ventilation.

RECOMMENDATIONS:

The existing heating system is antiquated and is not energy efficient. The boiler system is oil fired, with natural gas on site; this unit should be converted to take advantage of condensing type boilers with higher efficiencies. To remove this boiler it should be noted that the sections and "rope" holding the sections together may be asbestos containing material. The unit heaters, while operational, are nearing the end of their useful life expectancy and should be replaced with the heating system. A complete demolition of the existing heating system is recommended in the Service Building. To replace the system we recommend a gas fired condensing type boiler with new distribution to hot water unit heaters and baseboard throughout the building. As the Clean Burn waste oil unit heater in the Service Garage is relatively new, unit heaters in this area of the building will be treated as a secondary system to only operate when no waste oil is available. The Service Garages will require the addition of CO and No2 detection. Replacement of the existing through wall fans and a gravity intake relief with motorized shut off will be required. The storage side of the Service Garage will be heated with a new hydronic unit heater, no gas detection equipment is required in this area of the building as vehicles will be stored in this area, but will not be operational other than entry and exit from the building.

ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The service consists of a General Electric 400A 120/208 rated individual breaker enclosure assembly. The main service is comprised Main 400A Main Lug Only panel via a 400A transfer switch, a 320A direct meter located on the exterior of the building, and distribution panels throughout the site. The sub-panels are fed via conduit and wire and are located throughout the site. The existing panelboards are functional with signs of degradation. The existing wiring methods consist of mainly conduit and wire to main panels and metal clad cables with non-metallic cable (Romex) for branch wiring to the final loads. Emergency power is available via a Kohler 60KW generator. The main service is totally back-up by the generator.

Existing Main Service

Existing Sub-Panel

General power outlets are main surface mounted with minimal distribution. General power outlets show signs of corrosion and/or damage.

Adminsitration Area Power Strips

General Power Outlets

LIGHTING:

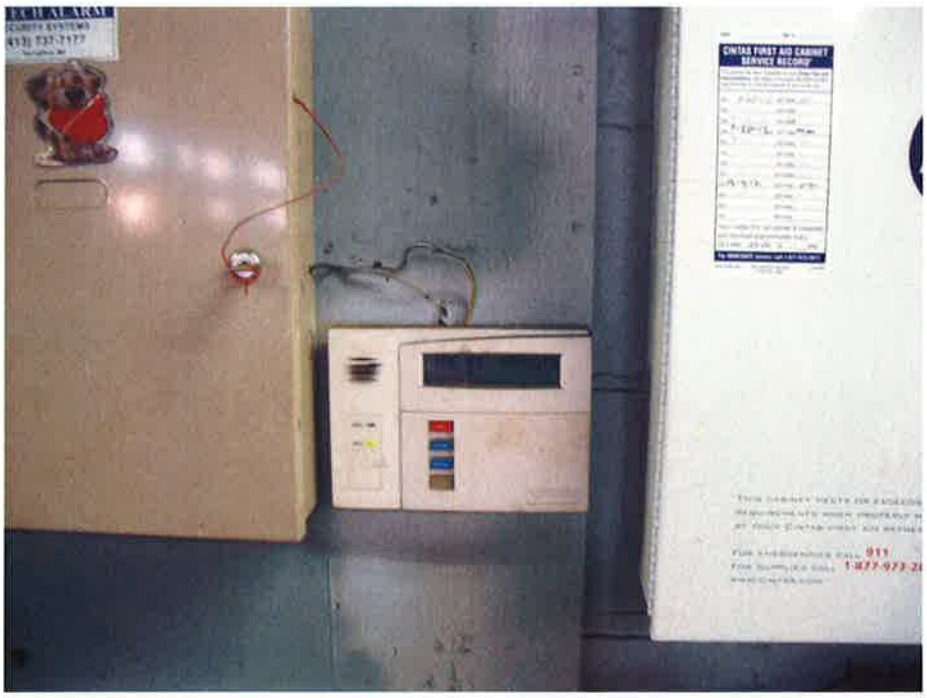
The majority of the lighting is obsolete and in disrepair. The various buildings are illuminated with several types of lighting. Office area is mainly surface and/or recessed mounted fluorescent. Some areas still

have the T-12 type lamping. The open bays are illuminated with H.I.D. and surface industrial type lighting. Some areas are illuminated with high wattage incandescent type lighting. There exist no lighting control features. Exterior lighting consists of H.I.D. type lighting.

Open Bay Lighting

FIRE ALARM:

The fire alarm system is a combination security/fire alarm Ademco type panel. The building has minimum smoke detection covers. The notification system is extremely limited. Bathrooms are not equipped with notification devices. Open bay does neither have CO nor NOX detection



Combination Security/Fire Alarm Panel

DEFICIENCIES

ELECTRICAL SERVICE AND DISTRIBUTION SYSTEMS:

The main service is operational but is limited and several components are in need of repair. Replacement of the Main Service may be necessary depending on the renovations and/or additions and to supply power to remote buildings that are lacking power. The present location of these sub-panels may not meet the present code concerning clearances and would have to be relocated to meet the new criteria.

The condition of the branch circuiting throughout the site are in disrepair and may not accommodate any substantial renovations and/or additions. Many power outlets and junction boxes need immediate repairs

to elevate shock hazards. Many of the branch circuit cables are not supported properly nor recommended for commercial installations. These branch circuits will have to be replaced and supported properly to accommodate any renovations to comply with the Massachusetts Electrical Code. Therefore, the distribution system will require updates and re-arrangement to accommodate any renovation and to solve deficiencies mentioned above.

Branch Circuit Examples

LIGHTING:

Most of the lighting is inadequate. The present lighting is energy inefficient and would not comply with the present energy codes or the Massachusetts Stretch Code. The missing lenses or the bare lamp strip fixtures present a hazard by having exposed lamps subject to breakage above working areas. The quality of light and illumination levels does not meet the present Illuminating Engineering Society of North America (IESNA) lighting quality levels. Some interior fixtures show sign of water damage and degradation of lighting output. The interior lighting should be totally replaced if any significant renovations are performed. The exterior lighting should be replaced with more efficient type fixtures such as Led type which may qualify for utility incentives.

Several existing fixtures present safety concerns due to exposed lamps, missing lenses, and poor supports.

Existing Light Fixture

Emergency/Egress relies on the standby generator and main lighting. Emergency/egress lighting may not comply with the present NFPA 101 Life Safety Code standards and should be supplemented and some of the older exits lights replaced with newer LED type fixtures as well as adding additional exit lights where only signs exist. The egress lighting needs to be measured with light meter to assure proper levels are met. Exterior egress paths will have to be upgraded to meet the NFPA 101 Life Safety Code lighting levels.

FIRE ALARM:

The present Fire Alarm as constituted will not meet the present 8th edition Massachusetts Building Code, NFPA 72, and ADA requirements. The present system would have to be upgraded or replaced to accommodate any renovation. The notification devices presently installed in the facility lack the proper coverage to meet the present codes and would have to be supplemented to comply. Detection would also have to be supplemented to the extent needed depending on whether or not the renovation requires the facility to be sprinkled or not. Components will have to be modified or rearrange to meet ADA and layout changes associated with the renovation and/or additions.

Fire Alarm Example

EXISTING ELECTRICAL CODE ISSUES:

Proper supports for branch circuits and Tel/Data cables.
Open junction boxes and exposed wiring.
Cable used for branch circuits not rated for commercial use.
Egress lighting

ELECTRICAL CODE OR STANDARDS AS A RESULT OF A RENOVATION:

Clearance and panel space for distribution panels (527 CMR 12, Massachusetts Electrical Code)
Proper support for power and Tel/Data cables
Lighting upgrades
Fire alarm upgrades
Egress lighting
Upgrades of distribution system

ELECTRICAL RECOMMENDATIONS:

Interior and exterior lighting upgrades.
Upgrade service and panels.
Egress lighting upgrades.
Distribution system upgrades

RECOMMENDATION BUDGETS:

See Project Budgets Section Option 2, for DPW addition budget.
Architectural recommendations estimated cost: $144,000.
Plumbing recommendations estimated cost: $10,210 this includes containment wall.
Fire suppression recommendations estimated cost: $235,000.
HVAC recommendations estimated cost: $75,000.
Electrical recommendations estimated cost: $45,000.

PROPERTY CONDITION ASSESSMENT

POLICE STATION

REINHARDT ASSOCIATES

architects • engineers • interior designers • planners

DESCRIPTION:

The Police Station is a single story brick masonry building with a walkout basement to the rear, and a four (4) car Sallyport to the side. The station consists of dispatch area, booking/fingerprinting, interview room, administration, chief's office, and cells on the main level. The lower level has detective's office, civil defense, armory, conference room, evidence room, locker/shower rooms, exercise, boiler room, and electrical room with a generator. The building is located at 160 Somers Road, East Longmeadow, MA, was built in 1976, is 9,358 SF, shares a lot with the Fire Department that is 14.83 acres and is zoned Residence A.

ARCHITECTURAL EXISTING CONDITIONS:

The building is made of brick and block masonry construction. The building has a flat three (3) year old EPDM roof, a standing seam metal mansard, on steel roof joists and beams. The station has insulated aluminum ribbon windows, aluminum entry doors, metal service doors, and two double-width overhead doors for the Sallyport. The interior walls are made of painted concrete masonry units, the floors are carpet, concrete, rubber in the Exercise, vinyl composition tile, and the ceilings are suspended acoustical tiles. The interior finishes are showing signs of wear, and metal toilet stalls are rusting, yet all are still quite serviceable. The cell areas are not in use at this time and are presently under review by the Town for State Sanitary code compliance and suicide prevention. The padded cell has also not been in use and has some mold growth on the ceiling.

RECOMMENDATIONS:

The interior finishes could be updated in the future, any mold should be eliminated, and record storage could be improved. At present, the Chief doesn't expect an increase in staffing needs and the crime statistic trends seem to confirm that. Overall, the facility is in good condition.

Police Station

PLUMBING EXISTING CONDITIONS:

The building has a 2" gas service serving water heating, space heating and an emergency generator; the service is adequate for the current load. 2" domestic water service is installed in this building.
The existing sanitary exit out of the building is presumed to be 4" based on the current fixture loads.
An oil interceptor appears to be installed for the garage floor drains based on the venting arrangement currently installed in the garage area. The current roof storm drainage is internal to the building and is anticipated to be a 5" based on loads. The current detention area has various code compliance issues that are not part of this scope and are currently being evaluated by the Town. The sink located in the activity room shows sign of leaking; this is a combination stainless steel unit. The current restrooms do not have the required floor drains or hose bibs.

RECOMMENDATIONS:

Fix or replace the leaking sink in the activity room. Install floor drains and hose bibs in restrooms containing more than a single water closet/urinal or consult with plumbing inspector for variance. The water service is adequate for the current loads however if an expansion is required a larger water service may be required depending on the size amount of fixtures and flush valves added to the load. The gas

service should be evaluated in the event of an expansion; the existing service meets the current load but future loads will not likely be available to be added to the piping network. The gas service should be consulted against future loads and any additional loads will need to be piped directly to the service entrance. Check records to verify that an oil interceptor has been installed to cover the floor drains in the garage area. If an oil interceptor has not been installed then this should be added.
Existing storm drainage piping size has been estimated based on existing loads in the event any additional loads are expected to be added to the system then records should be consulted to verify actual size and capacity remaining for future expansion. If records are not obtainable then both non-destructive scope should be performed to verify existing size.

FIRE SUPPRESSION EXISTING CONDITIONS:

No fire suppression system has been installed in this building.

RECOMMENDATIONS:

Fire suppression system should be considered to protect life and property in the event of a fire.

HVAC EXISTING CONDITIONS:

The existing police station has several different occupancies including a training center, office spaces, general and evidence storage, interview/interrogation and cell areas. Heating is provided to the building through a gas fired condensing boiler located in the basement mechanical space. Boiler is a Viessmann Vitodens 200 Model WB2 15-60. Heating hot water is distributed throughout the building to hydronic unit heaters, convectors and baseboard. Hot water piping in the boiler room is not insulated. The basement mechanical room is also the building server and 911 equipment room. Cooling is provided by a Leibert unit to maintain space temperature and protect the equipment. This space is open to the boiler room.

Cooling and ventilation air is provided to the building through a single rooftop unit RTU-1: Trane model YCD180B3HAHB with a date of manufacture of 12/2003. The unit is a 15 ton nominal cooling, with 350,000 Btu heating input and 284,000 Btu heating output. The unit has a minimum 250,000 Btu minimum heating input also listed, meaning that this is a 2 stage heating element. Unit appeared to be in very good condition given the age and was operational at the time of the visit. There is also an existing rooftop unit of undeterminable age or size. Unit was described as, and appeared to be, abandoned in place. Unit was originally believe to supply heat to the police stations parking garages before the addition of two (2) new Reznor gas fired unit heaters, one for each of the garage areas.

The cell areas have several issues associated with them; however Reinhardt understands that these issues are being investigated and corrected under a separate study/project by the Town. For the purpose of this report we will note that there are potential deficiencies in exhaust rates, suicide prevention and safety which are currently being corrected. No recommendations will be given for corrections in these areas.

Existing evidence storage room, currently located in the basement of the building was originally a shooting range. Several of the HVAC components utilized under the shooting range have continued to be used. No odor was detected at the time of the investigation in this room. Evidence storage is typically an environment where heavy odors and undesirable conditions are present.

Boiler controls consist of a Building Management System (BMS) integrated system with outdoor air reset and pump control. The rooftop unit has a standalone controller located in the main dispatch/office area of the building. Several pieces of hydronic heating elements have individual temperature control. Lastly the garage unit heaters are on standalone control to maintain space temperature.

An existing generator was located in a mechanical closet with a combustion air louver located through the sidewall with motorized damper. Louver appeared to be in poor condition, cooling was not observed in the space; however it is possible there is a form of hydronic cooling associated with this unit.

RECOMMENDATIONS:

The hot water heating system is fairly new and operates properly. Based on the headers in the boiler room preparations have been made for the addition of three zones. Insulation is required on the heating piping per the International Energy Conservation Code (2009). This should include all components including but not limited to piping, valves, unions and fittings. During the site investigation it was noted that the pumps do not have a check valve or strainer at the discharge side of the pump and should be included to protect the equipment. The boilers useful life expectancy is between 15-25 years.

The evidence storage room will require the addition of heating to maintain space temperature. A small hydronic fan coil or unit heater would be the best solution as these can be ceiling suspended and will not take away from the overall storage space. It will also alleviate trying to route ductwork through the building to this space. As the existing ventilation system was not designed for the current use this system will need to be closely investigated to ensure proper ventilation, and should remain and independent system.

The TRANE rooftop unit is approximately 10 years old, though it appears to have been well maintained over its life, typical life expectancy of a rooftop unit is 10-15 years. Dependent upon the results of the cell block study it would be beneficial to determine if these areas will be recommended for an isolated make-up air DOAS system or will continue to be served by the existing TRANE system. If separated from the TRANE rooftop unit, this unit may be oversized for continued use in the building and could result in short cycling. If it is determined to continue the use of the TRANE unit for the cell block areas, this unit may be undersized to bring the cell blocks up to current code requirements. Replacement of this unit, though properly working, will provide better energy efficiencies and zone distribution as it is nearing the end of its useful life expectancy. The new unit will also have the option to tie into the existing BMS equipment to allow for easier maintenance and troubleshooting control.

ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The service consists of a Square-D 600A 120/208 rated assembly. The power distribution system is adequate and meets present codes with the exception of dispatch and 911 areas which are limited in available power. The existing wiring methods consist of mainly conduit and wire to main panels and conduit and metal clad cables for branch wiring to the final loads. A portion of the facility has a back-up Cummins 20KW generator. The quantity and distribution of general power outlets are adequate and meet present codes with the exception of no ground-fault outlets in the bathrooms

Existing Main Service

LIGHTING:

The facility lighting consists of a variety of lighting types and layouts. The types include but are not limited to recessed and surface T-8 lighting and H.I.D. exterior. The layouts and lighting levels appear to meet the present codes for quality and levels.

Lighting Example

FIRE ALARM:

The fire alarm system is a hard wired manual system. The building has detection covers. The notification system is localized and appears to be horn/strobe type. Bathrooms are not equipped with notification devices. Manual pull stations are located at each exit doors but are not ADA compliant.

RECOMMENDATIONS

LIGHTING:

Most of the lighting is inadequate. The present lighting is energy inefficient and would not comply with the present energy codes or the Massachusetts Stretch Code. The missing lenses or the bare lamp strip fixtures present a hazard by having exposed lamps subject to breakage above working areas. The quality of light and illumination levels does not meet the present Illuminating Engineering Society of North America (IESNA) lighting quality levels. Some interior fixtures show sign of water damage and degradation of lighting output. The interior lighting should be totally replaced if any significant renovations are performed. The exterior lighting should be replaced with more efficient type fixtures such as Led type which may qualify for utility incentives.

Existing Light Fixture

Emergency/Egress lighting appears for the most part meets the requirement of the Life Safety Code with the exception of exterior egress lighting. The present installation will have to be modified to accommodate the proposed renovations and/or additions.

FIRE ALARM:

The present Fire Alarm as constituted will not meet the present 8th edition Massachusetts Building Code, NFPA 72, and ADA requirements. The present system would have to be upgraded or replaced to accommodate any renovation. The notification devices presently installed in the facility lack the proper coverage to meet the present codes and would have to be supplemented to comply. Detection would also have to be supplemented to the extent needed depending on renovations and/or additions. Pull station need to be installed by all egress doors at the proper height and distances from the egress.

RECOMMENDATION BUDGETS:

Plumbing recommendations estimated cost: $6,800.
$40,000 oil interceptor (if required).
$1,200 package roof top gas piping (if required).

Fire suppression recommendations estimated cost: $250,000.

Plumbing recommendations estimated cost: $65,000.

Electrical recommendations estimated cost: $15,000.

PROPERTY CONDITION ASSESSMENT

FIRE DEPARTMENT

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The Fire Department is housed in a single story masonry building with a small mezzanine for mechanical equipment. The gable roof structure has a high four (4) bay, drive through apparatus for the firefighting and rescue vehicles. The lower hip and flat roof structure has the dispatch, chief and administrative offices, training room, day room, gym, conference room, kitchen, and locker/shower rooms. The station was built in 2004, is 12,542 SF, shares a lot with the Police Station that is 14.83 acres. The rear of the site has the radio tower building. It is a 500 SF brick and block, single story, hip shingled roof building. The antennae tower is located behind the building within a fenced area. The balance of the site is occupied by storage trailers and a shed for the emergency generator. The Fire Department is located at 150 Somers Road, East Longmeadow, MA and is zoned Residence A

ARCHITECTURAL EXISTING CONDITIONS:

The building is made of brick and block masonry construction with pre-fabricated wood roof trusses, and a concrete slab on grade. The interior walls are made of painted concrete masonry units, the floors are carpet, ceramic tile, and vinyl composition tile and the ceilings are suspended acoustical tiles. A few hairline cracks can be found in the interior masonry walls. Repair is minimal and do not suggest structural problems. The apparatus roof structure was reported to have been replaced three (3) years ago. The roof purlins did not support the ends of the roof sheathing panels causing them to uplift. Repairs were accomplished with new wood blocking, new sheathing and roof shingles.

RECOMMENDATIONS:

The previous roof repair appears to be successful. The interior wall cracks can be filled with mortar and painted. The Fire Station buildings are in good condition and do not require improvements at this time.

Fire Department Building

PLUMBING EXISTING CONDITIONS:

The Fire Department consists of approximately 12,500 sq. ft, this building has a 2" domestic water service and the service is acceptable for the current load. The sanitary waste line is presumed to be a 4" based on the existing fixtures located in the building. The sanitary line is adequate for the current load. A 3" gas service is located on the building; this main is serving a gas generator, hot water and space heating. The service is acceptable for the current load. The building possibly has a storm drainage system; no plans were available to verify the size and location of the storm drainage. In addition to the existing systems it is believed that an oil interceptor is located on site serving the garage floor drains. A 6" fire service entrance is installed in the building, a 3" dry pipe sprinkler system is installed off of the service entrance. This system is covering the entire building. No plans were available at the time of this evaluation, some of the items were site verifiable and the remaining items concealed within the structure are estimated based on good engineering practices.

RECOMMENDATIONS:

The 2" water service is acceptable for the current fixture loads and has capability of future expansion, in the event multiple water closets are added the water supply the water system should be further

evaluated. The 4" sanitary waste line is acceptable for the current load and based on the existing fixture load has room for significant future loads, however each under slab branch line would need to be evaluated for specific loads in areas that may be considered for expansion. The gas line is sized adequately for the current loads, however and additions to the gas service should be independently investigated both internal and the gas service should be consulted with any additional load. In the event a load is added this will most likely need to be an independent branch back to the meter. The flat roof section of the roof appears to drain off onto the sloped roof, if the flat section of the roof is served by a roof drain the pipe should be verified that the pipe is 4" or larger. Records should be verified that an oil interceptor has been installed on the premises serving the floor drains in the garage, if no records indicate this, and then an oil interceptor and possibly a tight tank should be designed to accept the floor drains located in the garage.

FIRE SUPRESSION EXISTING CONDITIONS:

The existing fire suppression service is sufficient size to meet current loads and future loads based on the size of the water entrance compared to the fire riser service.

RECOMMENDATIONS:

Hydraulic calculations would be required in the event any addition to the sprinkler system is performed. These calculations should be consulted prior to any revisions to the existing riser; a new dry or wet pipe riser could be installed to the existing system if required.

HVAC EXISTING CONDITIONS:

HVAC is provided to the building by three (3) condensing type gas fired furnaces located in the mechanical space above the server room. Zoning for the building is as follows: AHU-1 serves the alarm room, captain/inspectors office and the chief's office; AHU-2 serves the training room and AHU-3 serves the day room, kitchen, multi-purpose room, weight room, and men's locker room (The women's locker room is believed to be served by this unit as well, but was not specifically listed). Units are sized at 4.5 tons, 3 tons and 3 tons and were described as original to the building installed in 1997. It was observed that exposed flexible duct connections in the mechanical room exceeded 10 feet in length, ductwork concealed above ceilings was not examined. All exposed ductwork was insulated, it was noticed that a few locations have the jacket for the insulation torn.

The building also contains a parking garage for fire engines and storage for equipment. This space is served by four (4) gas fired unit heaters Modine model PAE125. Unit heaters are also original to the

building and are in good condition. A separate vehicle exhaust system has been incorporated with several hose connections located around the space. The vent for this unit discharges through the exterior sidewall of the building, and terminates with a cap below the peak of the roof. This vent should be located either above the peak or 3 feet horizontally from the nearest wall. Lastly a louver and opening was observed at the exterior wall of the garage, believed to originally serve as make-up air for the vehicle exhaust system. This duct has been sealed off with cardboard and duct tape as it was described a cold draft was present at all times. No CO or NO2 monitoring was observed.

Adjacent to the garage is the buildings server room. This room does not have ventilation air or cooling. A desk is located in this room however it was described as normally unoccupied, with the desk located for convenience. No problems were described with overheating in this space.

In the men's and women's locker rooms as well as restrooms it was determined that the exhaust system serving these spaces was not in operation. It is believed that this is an electrical problem and personnel were on site at the time of this investigation correcting the issue. The kitchen space has an exhaust hood located over the stove which appeared to be operational.

RECOMMENDATIONS:

The existing air handling units located in the mechanical space above the sever room are currently 16 years of age; typical life expectancy of a condensing gas fired/ DX cooling air handling unit is 15-20 years and therefore these units are nearing the end of their useful life. Units have been very well maintained over the life and as a result appear to be in very good condition for their age. The existing ventilation system for the building appeared to be adequate, even though non-operational. Completion of the repairs was not confirmed while on site, however as long as this system was put back into operation no changes would be required for this system.

ELECTRICAL EXISTING CONDITIONS

ELECTRICAL SERVICE AND DISTRIBUTION:

The Service consists of a Square-D 600A 120/208 rated assembly. The power distribution system is adequate and meets present codes. The existing wiring methods consist of mainly conduit and wire to main panels and conduit and metal clad cables for branch wiring to the final loads. Facility is back-up with the exception of roof-top units by a Kohler 100KW generator. The quantity and distribution of general power outlets are adequate and meet present codes.

LIGHTING:

The Fire facility lighting consists of a variety of lighting types and layouts. The types include but are not limited to recessed, surface, T5-High Bay, and H.I.D. exterior. The layouts and lighting levels appear to meet the present codes for quality and levels.

High Bay Lighting

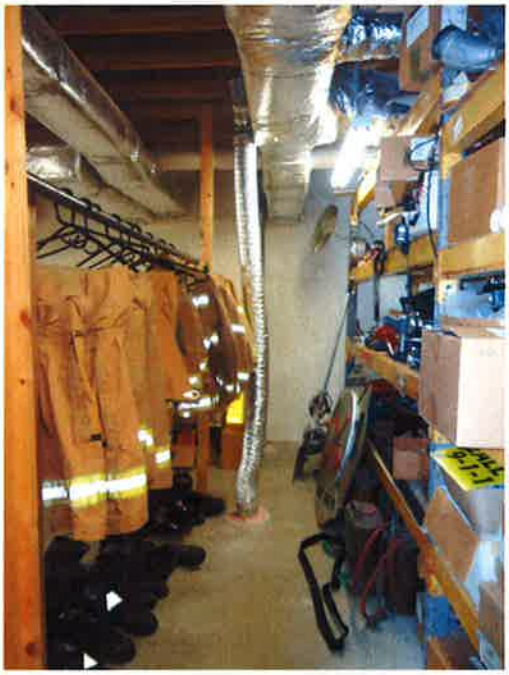
FIRE ALARM:

The fire alarm system is a NotifierAFP-200 addressable system. The building has detection covers. The notification system is localized and appears to be horn/strobe type. Bathrooms are equipped with notification devices. Manual pull stations are located at each exit doors.

RECOMMENDATIONS

LIGHTING:

Some lenses are missing and exposed lamping is present especially gear storage room. These fixtures should be repaired.



Existing Light Fixture

Emergency/Egress lighting appears for the most part meets the requirement of the Life Safety Code with the exception of exterior egress lighting. The present installation will have to be modified to accommodate the proposed renovations and/or additions. Exterior egress lighting should be added to meet present Life Safety Code.

RECOMMENDATION BUDGETS:

Plumbing recommendations estimated cost: $40,000 Cost on new oil interceptor (if required).
$6,500 upsizing storm drainage (if required).

Electrical recommendations estimated cost: $10,000.

PROPERTY CONDITION ASSESSMENT

WATER DEPARTMENT

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The Water Department building occupies a site to the rear of the DPW campus. The site contains the building plus a fenced-in area for pipe, equipment and supplies. The site is also adjacent to a Western Mass. Electric Co. easement. The interior has room for Water Dept vehicles, workshop, secure storage room, toilet, storage mezzanine, and an area for office work.

ARCHITECTURAL EXISTING CONDITIONS:

The Water Dept. is a single story brick/block, load bearing, flat roof structure. It has two overhead doors, and personal door. The floor is a concrete slab on grade. The mezzanine is wood framed accessed by wood stairs.

RECOMMENDATIONS:

The building needs an office in which to prepare daily work orders, order supplies, schedule workers, filing, and especially to read drawings of the Town's water and sewer infrastructure. The plans are large, they take up a lot of room and their storage and filing are vital to the Town's health and sanitary needs. The workshop and office area are contiguous and should be separated into their own work areas. Storage is minimal. The staff recommends a single-bay addition for another vehicle and for bulk storage. Some Water Dept. items would be preferred to be stored inside and out of the weather.

PLUMBING EXISTING CONDITIONS:

The water department is served by a 1" water connection feeding a restroom. A 4" sanitary main is presumed to exit the building foundation. A 1-1/4" gas service serves space and water heating
The building consists of a single restroom. No apparent storm drainage is located within the building
No Fire suppression has been installed in this building

RECOMMENDATIONS:
The existing water service is adequate for the current usage but will not support future flush valves or any significant additional load to the system. The sanitary waste will accept a greater load then the building is currently utilizing. The gas service is adequate for the current load but any revisions to this system should be further investigated with gas supplier and pipes will need to be evaluated with a high possibility that any additional load will require a dedicated branch line back to the meter. There should be some consideration to add a Fire suppression system to prevent the loss of life and property. Any additions to the building that would require storm drainage would result in a new storm drainage system to enter the building.

HVAC EXISTING CONDITIONS:

The water department consists of a single building which is primarily used for storage. Inside of the building is an assortment of equipment and materials. There is also a single desk in the rear of the building used for minor paperwork. The space is heated by a single gas fired unit heater. Space also contained an electric unit heater; however this unit is believed to be non-operational and abandoned in place. Space temperature seemed acceptable based on the usage of the building. The restroom is exhausted by a fan through the exterior wall with manual operated switch and hand operated door.

RECOMMENDATIONS:
A gas fired unit heaters useful life expectancy can be between 15-20 years dependent upon usage and service. Based on the appearance, the existing unit is still an acceptable means of heating the space, however newer technology would allow for a more efficient condensing style unit heater which will result in energy savings. The restroom exhaust fan needs to be replaced with a bathroom exhaust fan tied into the light switch for operation. The existing door and penetration will need to be enclosed and sealed.

ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The Service consists of a 200A 120/208 rated Main Panel with a direct 200A rated meter. The distribution is limited to one panel to power entire facility. The existing panelboards are functional. The existing wiring methods consist of mainly conduit and wire to main most of the loads and metal clad cables with non-metallic cable (Romex) for branch wiring to the final loads. General power outlets are main surface mounted with minimal distribution.

LIGHTING:

The majority of the lighting is obsolete. The lighting consists mainly of T-12 industrial type lighting. There exist no lighting control features. Exterior lighting consists of H.I.D. type lighting.

Open Bay Lighting

FIRE ALARM:

There is no fire alarm system existing presently at the facility.

RECOMMENDATIONS

SERVICE AND DISTRIBUTION SYSTEMS:

The main service is Operational but is limited. Replacement of the Main Service may be necessary depending on the renovations and/or additions. The condition of the branch circuiting throughout the facility is in good condition. The connections for proposed mechanical equipment will have to be modified or added depending on proposed changes. Romex wiring should be replaced during any renovations.

LIGHTING:

Most of the lighting is inadequate. The present lighting is energy inefficient and would not comply with the present energy codes or the Massachusetts Stretch Code. The missing lenses or the bare lamp strip fixtures present a hazard by having exposed lamps subject to breakage above working areas. The

quality of light and illumination levels does not meet the present Illuminating Engineering Society of North America (IESNA) lighting quality levels. The interior lighting should be totally replaced if any significant renovations are performed. The exterior lighting should be replaced with more efficient type fixtures such as Led type which may qualify for utility incentives.

Emergency/egress lighting may not comply with the present NFPA 101 Life Safety Code standards and should be supplemented and some of the older exits lights replaced with newer LED type fixtures as well as adding additional exit lights. The egress lighting needs to be measured with light meter to assure proper levels are met. Exterior egress paths will have to be upgraded to meet the NFPA 101 Life Safety Code lighting levels.

FIRE ALARM:

The addition of a fire alarm system would have to be added if renovations and/or additions trigger their requirements per the 8th edition of the Massachusetts Building Co

RECOMMENDATION BUDGETS:

Architectural recommendations estimated cost:$36,000.
Plumbing recommendations estimated cost:$1,600.
Fire suppression recommendations estimated cost: $13,500.
HVAC recommendations estimated cost: $10,000.

PROPERTY CONDITION ASSESSMENT

FORMER FIRE STATION

REINHARDT ASSOCIATES

architects • engineers • interior designers • planners

DESCRIPTION:

The former East Longmeadow Fire Station was built in 1924. It is single story brick building that had two door openings in the front that have since been replaced with brick in-fill and windows. The station consists of a large meeting room which served as the apparatus room, a kitchen, toilet room, small storage room, and a shed extension to the rear for the heating plant. The building's most recent use was by a local social organization. The station is located on 39 Shaker Road, East Longmeadow, MA. It is approximately 900 SF, occupies a 7.86 acre site, and is zoned Business.

ARCHITECTURAL EXISTING CONDITIONS:

The former fire house has a brick façade and stone trim. The roof is flat surrounded by a parapet wall. The Town has scheduled masonry repairs to the exterior and a new roof. The roof structure is wood framed with girders and rafters under a wood deck. The windows are vinyl double-hung with screens and wood trim. The interior finishes consist of a carpeted floor over wood framing and decking, wood wainscot, vinyl wall covering, and suspended acoustical tile ceiling in the former apparatus. Kitchen has sheet vinyl flooring, painted gypsum wallboard, and suspended acoustical tile ceiling. The rear toilet room and storage area have concrete floors and portions have concrete block walls. The station has not been occupied lately, yet its condition is fair to good.

CONCLUSIONS:

Our proposal is to relocate the Information Technology Department from Town Hall to this facility. Proposed renovations include, insulate the exterior walls and ceiling, and provide new finishes, two private offices, two new accessible toilet rooms, new energy efficient lighting, heating, air-conditioning and a generator for the technology equipment. The IT Dept. is capable of a stand-alone operation and the space vacated can be utilized by new offices in Town Hall.

Former Fire Station

PLUMBING EXISTING CONDITIONS

The Fire 1924 fire house is currently not being utilized for any full time occupation, the apparent use is seasonal, The building consist of a non-commercial kitchen with a (2) bowl sink.
There is a men's and woman's room in the rear of the building these rooms do not meet any form of ADA requirements. There is a existing 1-1/4" gas service located on the south wall, this serves a single HVAC unit located in the rear of the building in an apparent addition out building that is currently not heated on the west side of the building. 1" water service is located on the north corner of the building and serves (2) lavatories, (2) water closets and a kitchen sink. There are no current records to indicate the size, type and location of the sanitary exit out of the building. Based on the fixtures the existing sanitary exit is presumed to be 3" or larger exiting the building.

RECOMMENDATIONS:

If this building use is to be revised for the relocation of the IT Department the restrooms will need to be renovated to current ADA requirements. The existing water closets will be required to be tank type water closets unless the water service is enlarged to accommodate flush valves. The sink should be replaced and redesigned to meet the current ADA requirements.

A service sink will need to be added to the building and a keyed exterior wall hydrant is also recommended to be installed on the exterior.

FIRE SUPRESSION EXISTING CONDITIONS:

The building is approximately 900 sq feet and currently does not contain any suppression system

RECOMMENDATIONS:

The existing building does not require a fire suppression system; the Current water entrance into the building would not support a new fire service into the building. If a suppression system is intended to be introduced into the building to protect life and property a new Water entrance and possibly a new fire hydrant would be required.

HVAC EXISTING CONDITIONS:

The old fire station is currently between occupancies. Existing heating system consists of a TRANE XR80 gas fired furnace with efficiency of 80% AFUE. No ventilation air was being provided through the furnace; therefore the building relies on operable windows for ventilation air. No cooling is provided in the building, and the single restroom is exhausted, however no discharge was observed at the time of this investigation. It is possible that the exhaust fan is venting into the plenum, this was not able to be confirmed.

RECOMMENDATIONS:

Dependent upon the final use of the building, changes may need to be made to the existing system. Under the proposed option for filing and storage the existing system will require no modifications. Based on the efficiency possible energy saving could be implemented with a new condensing type high efficiency furnace.

If the space is to be used for IT office spaces additional changes will be required. As there will be a higher occupancy then the original use of the building, a ventilation component would need to be incorporated. Cooling should be added to the building as there will be the addition of computer work stations providing a higher equipment load in the space and overheating of technical equipment could be possible. Cooling should also be added as the increase in occupancy and the addition of ventilation air will lead to a higher space load. Also under this option replacement of the existing furnace would be required to incorporate the new cooling and ventilation system. A new bathroom exhaust fan would be required as well as the

discharge of the current toilet exhaust system would need to be determined and final location to be vented out of the building a minimum 10 feet from the new outdoor air ventilation connection to the furnace.

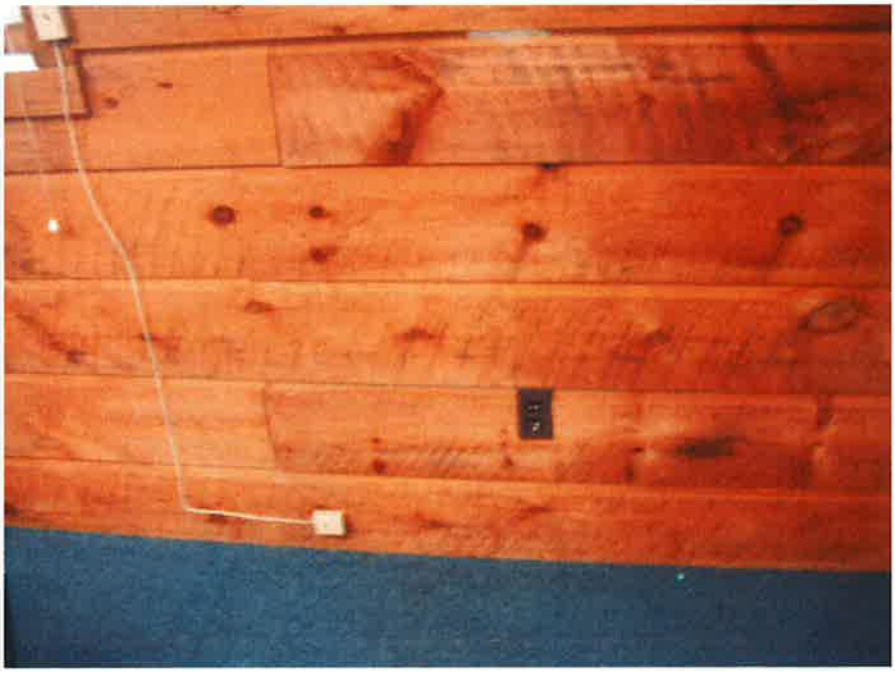
ELECTRICAL EXISTING CONDITIONS

SERVICE AND DISTRIBUTION:

The Service consists of a 100A 120/240 rated Main Panel with a direct 100A rated meter. The distribution is limited to one panel to power entire facility. The existing panelboard is functional but limit in available circuits. The existing wiring methods consist of mainly metal clad cables and non-metallic cable (Romex) for branch wiring to the final loads. General power outlets are mainly recess with minimal distribution.

Service Entrance

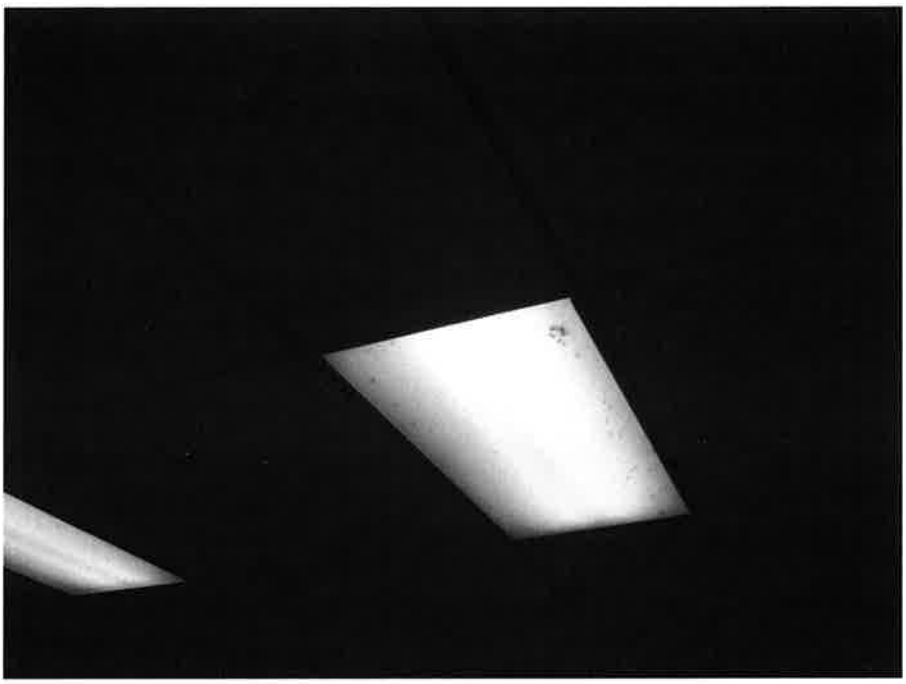
Panelboard



Wall Outlet

LIGHTING:

The majority of the lighting is recess T-8 type lighting with incandescent exterior lighting. There exist no lighting control features.



FIRE ALARM:

There is no fire alarm system existing presently at the facility.

RECOMMENDATIONS

SERVICE AND DISTRIBUTION SYSTEMS:

The main service is operational but is limited. Replacement of the Main Service may be necessary depending on the renovations and/or additions. The condition of the branch circuiting throughout the facility is in good condition. The connections for proposed mechanical equipment will have to be modified or added depending on proposed changes. Additional general purpose outlets will be needed if substantial renovations and/or additions will be implemented. Service and branch circuit systems should be upgrade to allow for renovations and/or additions.

LIGHTING:

Most of the lighting is inadequate. The present lighting is energy inefficient and would not comply with the present energy codes or the Massachusetts Stretch Code. The quality of light and illumination levels does not meet the present Illuminating Engineering Society of North America (IESNA) lighting quality levels. The interior lighting should be totally replaced if any significant renovations are performed. The exterior lighting should be replaced with more efficient type fixtures such as Led type which may qualify for utility incentives.

Emergency/egress lighting may not comply with the present NFPA 101 Life Safety Code standards and should be supplemented and some of the older exits lights replaced with newer LED type fixtures as well as adding additional exit lights. The egress lighting needs to be measured with light meter to assure proper levels are met. Exterior egress paths will have to be upgraded to meet the NFPA 101 Life Safety Code lighting levels.

FIRE ALARM:

As long as the classification of the building does not change no fire alarm will be necessary. The present system would have to be upgraded or replaced to accommodate any renovation if triggered by the 8th edition of the building code.

RECOMMENDATION BUDGETS:

See Project Budgets Section, Option 2, Phase 1 for Former Fire Station budget.

PROPERTY CONDITION ASSESSMENT

PINE KNOLL ADMINSTRATION BUILDING

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners

DESCRIPTION:

The Pine Knoll Administration Building is presently under construction, with completion expected later in 2013. The building is one story, wood frame, and gable roof, with a full basement. The building has insulated vinyl double-hung, divided lite windows, fiberglass entry doors, vinyl cedar shake siding, and asphalt shingle roofing. The administration building is planned to have a reception area, two private offices, a nurse's office, and two accessible toilet rooms, and a basement for storage. The building is located at 1974 Allen Street, East Longmeadow, MA. The facility is 1,944 SF, sits on 5.99 acres of the Pine Knoll recreation area, and is zoned Residence A.

ARCHITECTURAL EXISTING CONDITIONS:

The building, as mentioned is under construction. The building foundation and shell is complete, siding, windows/doors, and roofing have made the structure weather-tight. Interior walls have been framed but not yet insulated or drywalled. Rough and finish plumbing, heating, electrical, and floor, wall and ceiling coverings remain to be done.

RECOMMENDATIONS:

We present an option to relocate the Recreation Department from the Senior Center to the camp location and to occupy the new building. The administration building will serve the summer camp and also be utilized year round for the Rec. Dept. operation. The move may temporary inconvenience some Town residents until they become aware of the new location. Yet it provides the benefit of full year utilization of the facility and offers a full basement for the storage of the Town's athletic equipment.

PLUMBING EXISTING CONDITIONS:

This building is in rough out stage of construction and not all services have been completed at the time of inspection. Building plans were used to determine utility sizes. 1" water entrance shall be located in the building. 4" sanitary waste main shall be installed in the building. No provisions for fire suppression have been indicated on plans

RECOMMENDATIONS:

The items shown on the plans meet the current code requirements. The domestic hot water supply piping insulation should be increased from ½" to 1" based to meet current energy code requirements. An expansion tank should be installed on the hot water heater. Install heat loop at the outlet of the domestic hot water heater. No sink faucet has been indicated for mop sink but plan calls for hose and bracket, Provide proper backflow prevention in faucet.

HVAC EXISTING CONDITIONS:

The building is currently in the construction phase and no HVAC equipment has been installed. Currently the building is framed, interior partitioning has been framed, and however no services have been brought to the building. In the basement the new heating and cooling system equipment are being stored. The heating system consists of a Buderus oil fired direct vent boiler with 108 MBh input and 102 MBh gross output. A new split system with DX coil and corresponding condensing unit are also located in the basement. Plans call for the condensing unit to be located at the rear of the building on a housekeeping pad. Plans call for the air handling unit (and furnace) and associated duct distribution to be installed in the basement, and tie into floor registers throughout the building. Exhaust fans have been indicated in the restrooms, none were installed at the time of the visit.

RECOMMENDATIONS:

Based on the equipment seen on site, the installation is varying from the plans which were provided to this office. Original plans call for a furnace with DX cooling coil. No provisions were made for hot water heating; no baseboard, unit heaters or other hydronic heating elements were observed. As the air handling unit is to be located in the basement, hot water should be introduced to a hot water coil on the supply side of the system to provide heating. Supplementary baseboard could be used throughout the building in areas such as restrooms and entries to the building due to usage of the space as well as normal conditions (opening and closing of doors) for additional comfort.

ELECTRICAL EXISTING CONDITIONS

No existing electrical. The facility is ready for rough of electrical.

RECOMMENDATIONS

The plans dated July 2, 2010 seem to meet code for a business classification. The service indicated seems in conflict. The voltage represent a single phase service 120/240 however the panel schedule indicates 4 wires and shows three phases. The service drop is representative of single phase. A single phase 100A service would be adequate for this installation. It is RAI's recommendation that occupancy sensors be added to the lighting systems and consideration of Super-T8 fixture for energy reductions. In addition RAI suggest that some smokes be added to the security alarm for additional safety and property protection none are required if business is the classification. IT installation should be equipped with the proper grounding of all server equipment.

RECOMMEDATION BUDGETS:

Plumbing recommendations estimated cost: $700, (if storm piping system required) $7,500.
Fire suppression recommendations estimated cost: $12,500.
HVAC recommendations estimated cost: $500.00 per baseboard.
Electrical recommendations estimated cost: $2,000.

SCHEMATIC DESIGN NARRATIVE

REINHARDT ASSOCIATES

architects • engineers • interior designers • planners

SCHEMATIC DESIGN NARRATIVE

The Committee emphasized the thrust of the report should address the overcrowding experienced presently in Town Hall and recommendations for its relief. The Town Hall Spatial Needs Assessment is based on an ideal Town Hall conceptual office configuration, spatial requirements for individual department needs, interviews with town staff and department heads, review of individual space functions and furniture, equipment space requirements, existing functional spaces, the review of past discussions, and the experience of RAI with other nominal Town Office / Town Hall Facility programming and designs.

Design assumptions presented in the Schematic Design Drawings derive from the Space Needs Assessment which is based on renovating the existing Town Hall facility and adding to the facility to accommodate the recommended spatial requirements. Several design options were evaluated including utilizing the existing Town Hall footprint without expansion, a possible first floor addition, a combination of a first floor and second floor additions, and relocating some Town Hall functions to other facilities. This study does not explore obtaining other sites for relocation of some departments as no other sites were indentified or available for consideration at the time of this writing.

Option 1: The existing square footage of the building as presently configured represents an overcrowded office facility. By redistributing some departments and reconfiguring others, we are able to make better use of the existing building footprint and give needed space to those departments that are most in need. Although redesigning and utilizing the existing building footprint, the redesign does not give adequate space for all departments and does not provide additional space to the departments for any imminent growth, which will not solve the space needs for the future.

Consideration was also given to utilizing the Library as an Annex to Town Hall by using its elevator and meeting rooms. The problem is, this discussion has taken place for several years and there still have been on movement towards any of its implementation. This idea still does not resolve the overall crowding condition, provide room for future growth, nor provide a legal second means of egress from the second floor of Town Hall.

Option 2: Was explored involving moving the DPW from the second floor of Town Hall to a new building addition creating a second floor over the existing first floor of the DPW Service Building, located on 84 Somers Road. While this option does free up some space within Town Hall, it only allows space for those departments that do not have adequate space now, and does not satisfy the Space Needs requirements for Town Hall going into the future. A second floor addition will require analysis of the existing structure to determine if it can carry the new imposed loads. If not, the reinforcement of the existing roof and of the first floor masonry walls will have to be implemented. Even without the reinforcement of the existing structure, the budget is roughly the same as the additions to Town Hall without solving all of the crowding and spatial issues. This option also creates inefficiency by separating the DPW away from Planning, Conservation, Zoning, Building, and Assessor's, which are departments that are interrelated, and constantly relying on one another for permits, new buildings, sub-divisions, plan and map sharing and duplication. The present DPW site also does not allow room for any additional parking for the newly relocated employees or visitors.

The preferred Option 3 presents a Master Plan that successfully resolves all of the overcrowding conditions, provides room for future growth, gives better inter-department adjacencies, cures code deficiencies, provides full accessibility, and makes Town Hall easier to use by the public and its employees. The plan involves consideration for a building addition and alterations to existing spaces to accommodate the present and future spatial needs and to comply with applicable codes. The alterations and addition will trigger full accessibility for the entire building, and the need for an automatic sprinkler system.

A building addition will also require additional parking, as mandated by the zoning ordinances, due to the increase in the gross floor area of the addition. The Planning Board however, may waive the parking requirement by a majority vote (Zoning By-Laws, Section 7.433), due to unique site conditions. The available parking areas are presently limited and the building addition does not add more occupants at this time.

The proposed Option 3 design achieves more room for some departments, better utilization of space for others, and improves efficiency between departments, moves the Information Technology Department out of Town Hall, relocates other departments within the building, and makes Town Hall more "user friendly" to the public. The clerk/treasurer/collector's office is moved closer to the north main entrance from the parking lot. This relocation of the most heavily visited department will benefit the public by making it easier to find, especially for the elderly residents. The clerk and collector remain adjacent to each other yet are separated with individual entrances to lessen confusion when the cliental are paying bills, fees or retrieving pertinent records. The plan will also reduce some of the traffic through- out Town Hall.

Option 3 has a Phase 1 or "Quick Fix" that consists of a minimal alteration involving the erection of just four partitions. The IT staff relocates to a newly renovated Former Fire Station on 39 Shaker Road for a stand-alone operation. The space vacated by the IT Dept. becomes temporary room for proper office space for the accountant and building commissioner and gets them away from the public traffic stream. Option 3, Phase 2 is the Master Plan to correct all of the Space Needs. The temporary account and building commissioner's offices give way to space that is utilized by a new clerk's office and benefits manager's office. The assessors and accounting will now occupy the area previously held by the clerk/treasurer/collector office.

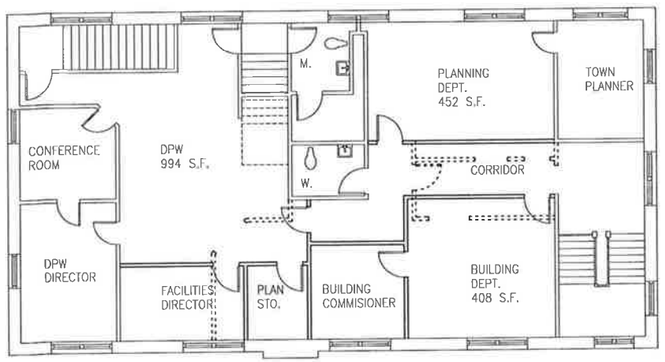
The plan provides a much needed and requested employee break room, an employee work room for centralized copying and mailing operations, and more storage space. The alterations renovate the existing toilets near the main entry and make them handicapped accessible. A new code compliant stairwell and elevator are added to make the Town Offices available to all members of the public to transact business. The stairs and elevator are a small masonry addition to the north side of the building. The south side will receive a one story, steel frame addition that will house a new State compliant vault, conference room, a new building department, storage, and a board of selectmen conference room. The existing basement will receive additional dehumidification and improvements to record/archive storage and retrieval.

The recommended construction sequence for Option 3 is as follows: The south addition is constructed first. The structure is one story steel frame, and roof deck, concrete foundation, with a concrete slab on grade. The addition is 28 FT x 56 FT and will take approximately two weeks to erect. The roof covering and wall in-fill will take another two weeks, which will render a weather-tight enclosure. The interior fit-out will take another couple of weeks. Once the addition's finishes are complete the addition becomes the "swing space" and a systematic move of departments can take place. Building Department can move into their new home. Assessor's can relocate to the addition for the renovation for the new clerk/collector office. The clerk then occupies their new office, vacating their former space for the alteration for the assessor and accountant to move into their new space. The north addition could take place concurrently to construct the new stairs, elevator, and accessible toilet rooms. The second floor modifications would also occur at this time. The disruption to Town Hall is minimal with work occurring in individual departments one at a time, in an effort to cause the least amount of inconvenience to the employees and to the public.

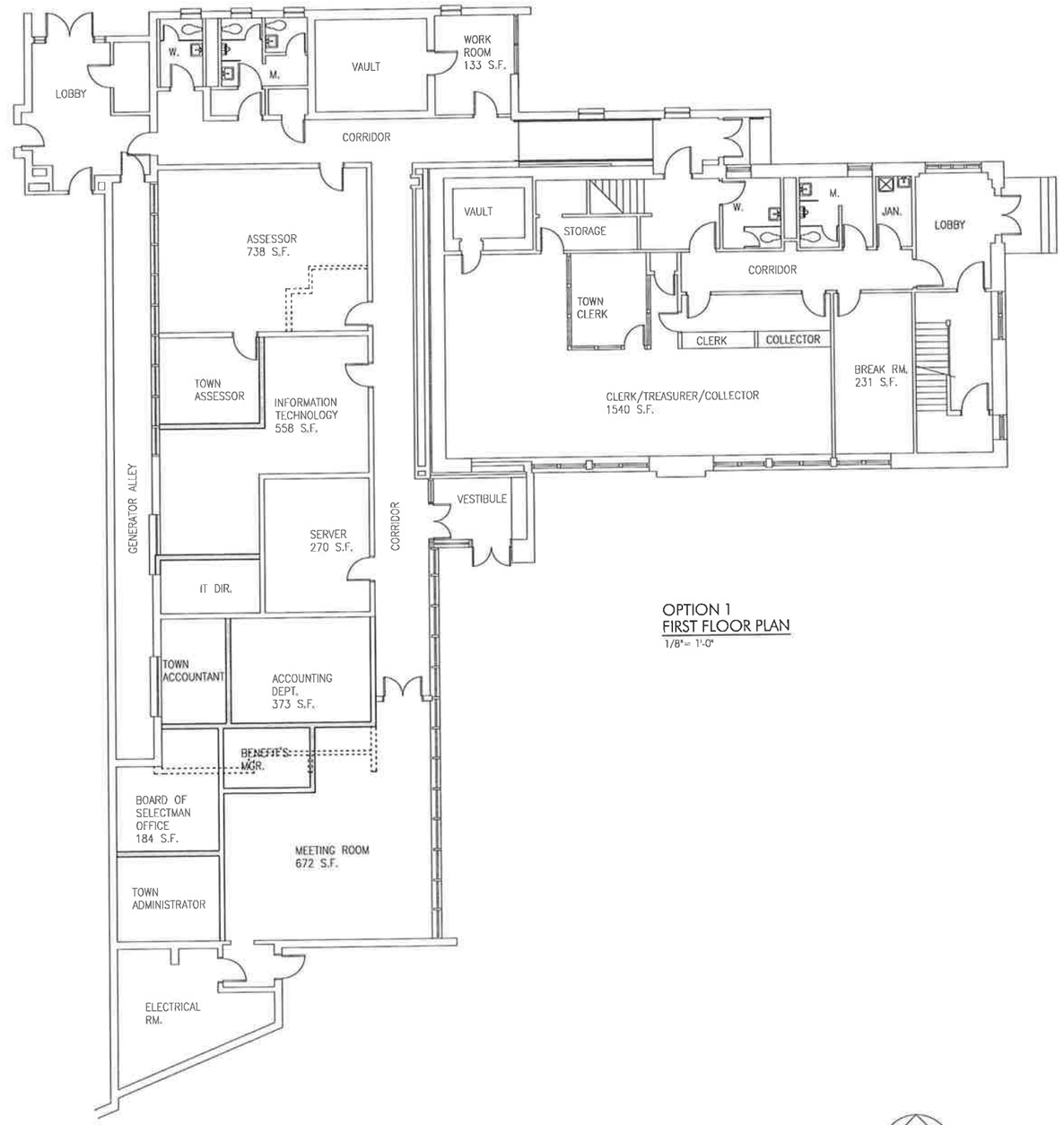
Option 3 is recommended to best solve the spatial isues for the present and into the future by providing adequate space for personnel, room for growth for the future, and room for Town Hall's ever increacing storgage needs. The budget for the alterations and addition of Option 3 is comparable to Option 2, the DPW expansion, and it resolves all of the overcrowding issues for the relativly similar costs.

SCHEMATIC DESIGN DRAWINGS

REINHARDT ASSOCIATES
architects • engineers • interior designers • planners



SECOND FLOOR PLAN
1/8"= 1'-0"



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

PLAN NORTH

REINHARDT ASSOCIATES

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- ENGINEERS
- PLANNERS
- PROJECT MANAGEMENT

430 MAIN STREET
AGAWAM, MA 01001

TEL.: 413. 786. 9600
FAX: 413. 786. 8699

STAMP:

SCALE: 1/8"=1'-0"
PROJ. NO: 13-2219
DRAWN: KT
CHECKED: MH
DATE: 4-15-2013
FILE NAME: A1
REV:
REV:

PROJECT TITLE:

EAST LONGMEADOW SPACE NEEDS STUDY

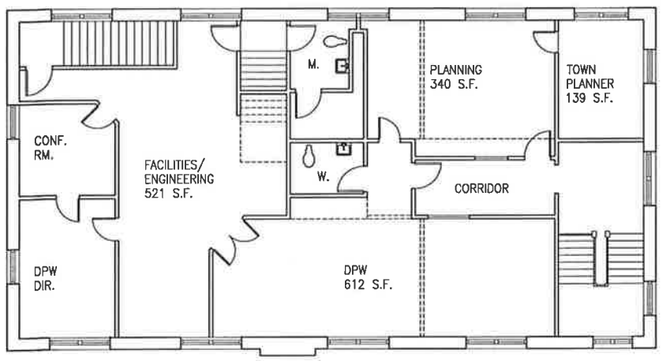
60 CENTER SQUARE
E. LONGMEADOW, MA

DRAWING:

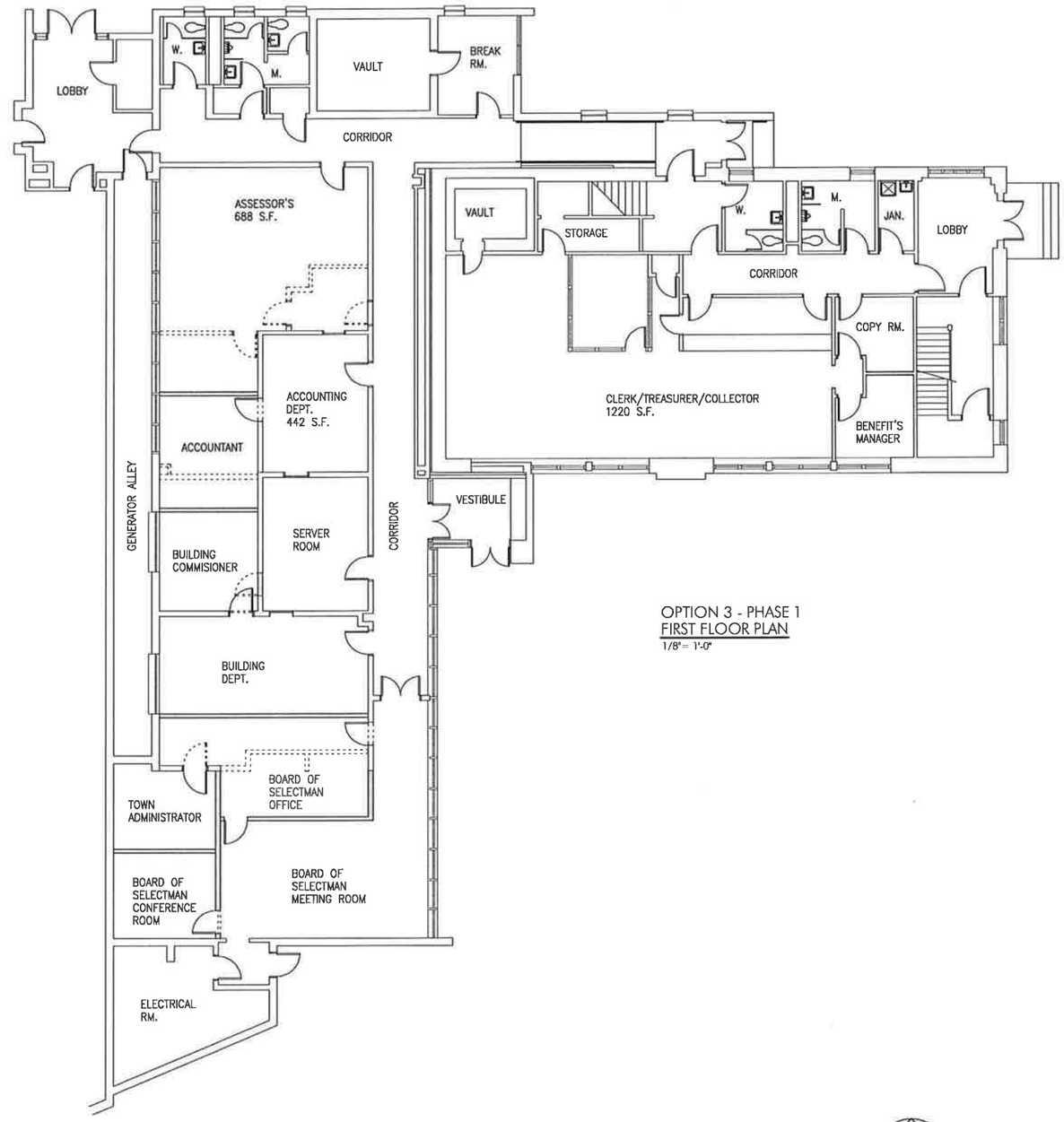
FIRST AND SECOND FLOORS OPTION 1

SHEET:

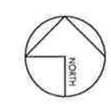
A.1



SECOND FLOOR PLAN
1/8"= 1'-0"



OPTION 3 - PHASE 1
FIRST FLOOR PLAN
1/8"= 1'-0"



PLAN NORTH

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- PROJECT MANAGEMENT

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ASHAWAM, MA 01001
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FAX: 413.788.8999

STAMP:

SCALE: 1/8"=1'-0"
PROJ. NO: 13-2219
DRAWN: KT
CHECKED: MH
DATE: 4-15-2013
FILE NAME: PHASE 1
REV:
REV:

PROJECT TITLE:

EAST LONGMEADOW SPACE NEEDS STUDY

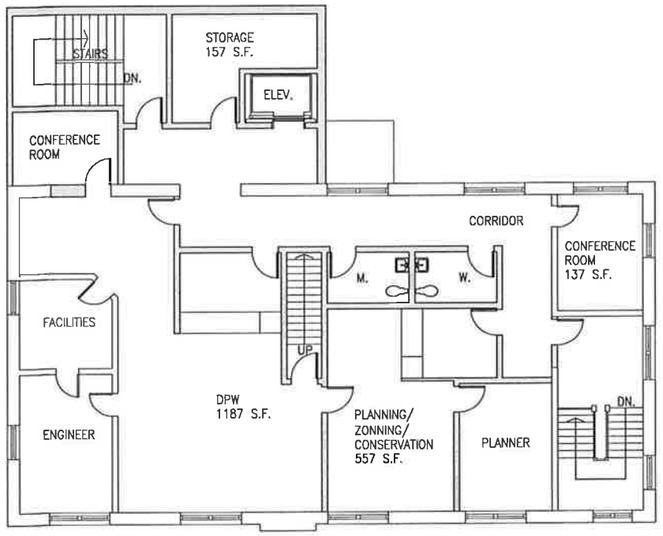
60 CENTER SQUARE
E. LONGMEADOW, MA

DRAWING:

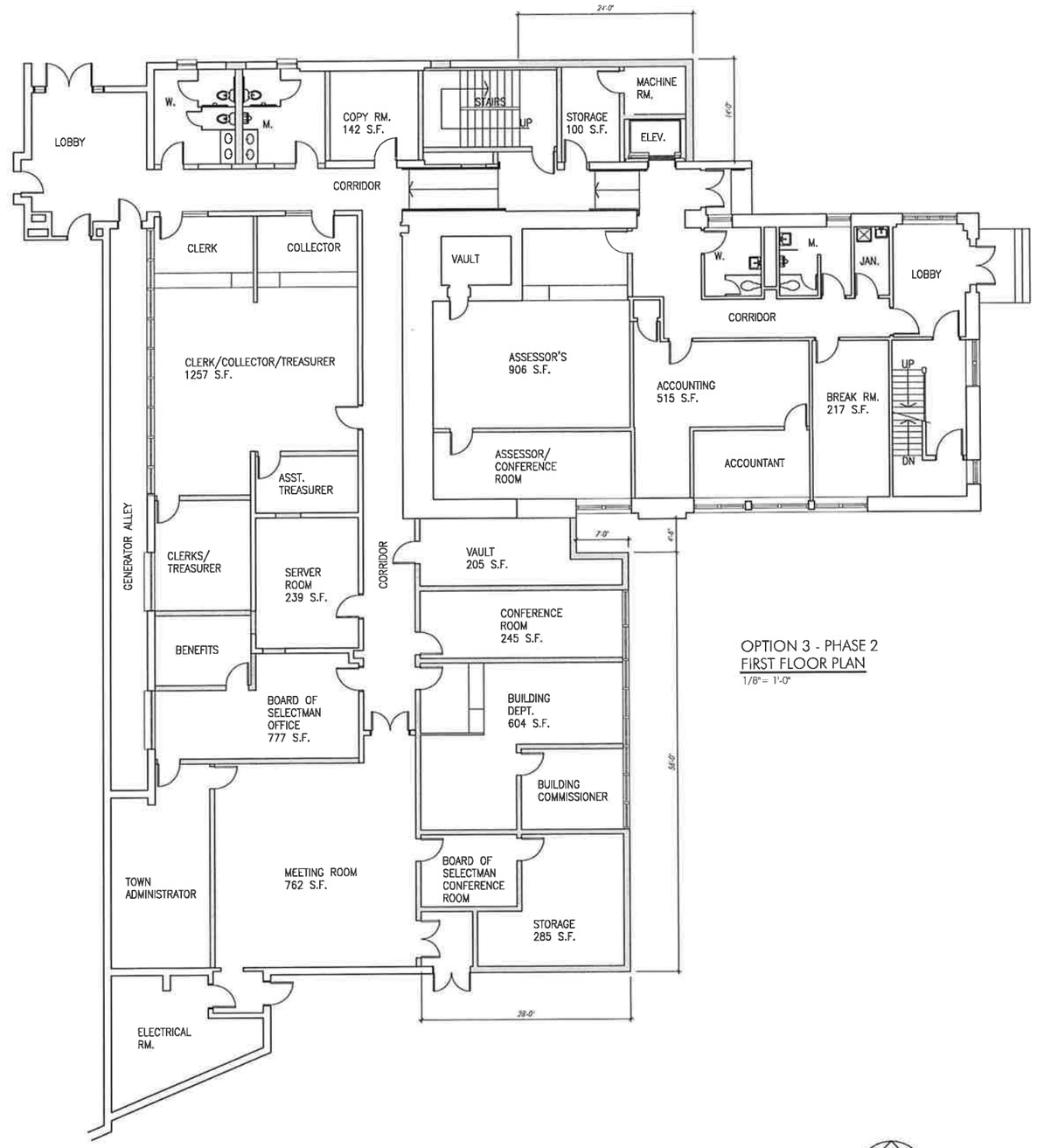
FIRST FLOOR PLAN OPTION 3 - PHASE 1

SHEET:

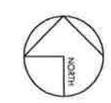
A.2



SECOND FLOOR PLAN
1/8"= 1'-0"



OPTION 3 - PHASE 2
FIRST FLOOR PLAN
1/8"= 1'-0"



PLAN NORTH

REINHARDT ASSOCIATES

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- PLANNERS
- PROJECT MANAGEMENT

430 MAIN STREET
ASWAM, MA 01001

TEL.: 413. 786. 9600
FAX: 413. 786. 8999

STAMP:

SCALE: 1/8"=1'-0"
PROJ. NO: 13-2219
DRAWN: KT
CHECKED: MH
DATE: 4-15-2013
FILE NAME: OPT A
REV:
REV:

PROJECT TITLE:

EAST LONGMEADOW SPACE NEEDS STUDY

60 CENTER SQUARE
E. LONGMEADOW, MA

DRAWING:

FIRST AND SECOND FLOORS OPTION 3 - PHASE 2

SHEET:

A.3

BUDGET ESTIMATES OF PROJECT COSTS

REINHARDT ASSOCIATES

architects • engineers • interior designers • planners

PROBABLE BUDGET ESTIMATE OF PROJECT COSTS

OPTION 2 - Alteration and Addition to DPW Service Building

The following Probable Estimate of Project Costs are based on Building Assessment and Schematic Drawings prepared by Reinhardt Associates, Inc. dated April 15, 2013.

1.	**GENERAL CONSTRUCTION**			
	a.	Construct 1,632 SF 2 nd Floor Addition-Steel Frame x $200 / SF	$326,400.00	
	b.	Renovate 12,435 SF 1st & 2nd Floor x $145 / SF	$1,803,075.00	
		Sub-Total:		$2,129,475.00
2.	**CONSTRUCTION FACTORS**			
	a.	Asbestos Abatement (Allowance)	$20,000.00	
	b.	Design/Construction Phase Contingency @ 5% =	$106,474.00	
		Sub-Total:		$2,255,949.00
	c.	Escalation to Mid Point Construction (11/13) @ 3% =	$67,678.00	
		Sub-Total:		$2,323,627.00
	d.	ConstructionChange Contingency @ 6% =	$139,418.00	
3.	**TOTAL PROBABLE CONSTRUCTION BUDGET**			**$2,463,045.00**
4.	**PROJECT DEVELOPMENT**			
	a.	Architectural/Engineering Fee @ 9.2%	$226,600.14	
	b.	Site/ Property Survey	N/A	
	c.	Hazmat Survey	$4,500.00	
	d.	Geotechnical Engineer/ Borings	N/A	
	e.	Construction Materials Testing	$3,000.00	
	f.	Legal	TBD	
	g.	Printing/Reproduction	$9,000.00	
	h.	Legal Advertising/Bidding	$500.00	
	i.	Owner's Project Manger	$60,000.00	
	j.	Moving/Relocation Expense	By Town	
	k.	Furnishing/Equipment	By Town	
		Sub-Total:	$303,600.14	
5.	**TOTAL PROBABLE ESTIMATE OF DEVELOPMENT/CONSTRUCTION COSTS**			**$2,463,045.00**

6. **PROPERTY ACQUISITION**

a. N/A $0.00

7. **TOTAL PROBABLE ESTIMATE OF PROJECT COSTS** **$2,463,045.00**

8. **QUALIFICATIONS**

a. This Estimate of Probable Project Cost is based on Following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Mon. thru Fri.
3. This estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil or underground fuel tanks.
5. Items that could impact this Estimate are:

   a. Unforeseen subsurface conditions
   b. Restrictive technical specification
   c. Non-competitive bid conditions (less than six qualified bids)
   d. Sole source specification of materials or products
   e. Delays beyond the project schedule or bid date
   f. Accelerated completion schedule

b. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

Prepared By:

Reinhardt Associates Inc.

My-Ron Hatchett, AIA
Project Director

PROBABLE BUDGET ESTIMATE OF PROJECT COSTS

OPTION 3, Phase 1 - Alteration to Former Fire Station & Town Hall

The following Probable Estimate of Project Costs are based on Building Assessment and Schematic Drawings prepared by Reinhardt Associates, Inc. dated April 15, 2013.

1.	**FORMER FIRE STATION BUILDING IMPROVEMENTS**			
	a.	Interior demolition, furr and insulate perimeter walls and ceiling, add two private offices, add two accessible men and women rooms, new office doors and hardware, new floor, wall, and ceiling finishes, toilet accessories.	$36,000.00	
2.	**TOWN HALL INTERIOR IMPROVEMENTS**			
	a.	Alter space vacated by IT Dept.	$30,000.00	
3.	**PLUMBING**			
	a.	Demolish existing, modify waste, vent, hot-cold water piping, add new men's & women's toilet rooms (handicap accessible).	$18,000.00	
4.	**HVAC**			
	a.	Demolish existing, add new 5 ton DX cooling, gas heating, ductwork, refrig. Piping, toilet exhaust, elec. baseboard, unit heater, controls, and balancing.	$13,000.00	
5.	**ELECTRICAL**			
	a.	Demolish exist. Lighting, add new power outlets, lighting, fire alarm, security, generator, and transfer switch.	$44,000.00	
		Sub-Total:		**$141,000.00**
6.	**CONSTRUCTION FACTORS**			
	a.	Construction Change Contingency @ 4% =	$5,640.00	
7.	**TOTAL PROBABLE CONSTRUCTION BUDGET**			**$146,640.00**
8.	**PROJECT DEVELOPMENT**			
	a.	Architectural/Engineering Fee @ 8%	$11,731.20	
	b.	Site/ Property Survey	N/A	
	c.	Hazmat Survey	$1,500.00	
	d.	Geotechnical Engineer/ Borings	N/A	
	e.	Construction Materials Testing	N/A	
	f.	Legal	TBD	
	g.	Printing/Reproduction	$500.00	
	h.	Legal Advertising/Bidding	N/A	
	i.	Owner's Project Manger	N/A	
	j.	Moving/Relocation Expense	By Town	
	k.	Furnishing/Equipment	By Town	
		Sub-Total:	$13,731.20	
5.	**TOTAL PROBABLE ESTIMATE OF DEVELOPMENT/CONSTRUCTION COSTS**			**$160,371.20**

6. **PROPERTY ACQUISITION**

a. N/A $0.00

7. **TOTAL PROBABLE ESTIMATE OF PROJECT COSTS** **$160,371.20**

8. **QUALIFICATIONS**

a. This Estimate of Probable Project Cost is based on Following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Mon. thru Fri.
3. This estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil or underground fuel tanks.
5. Items that could impact this Estimate are:

   a. Unforeseen subsurface conditions
   b. Restrictive technical specification
   c. Non-competitive bid conditions (less than six qualified bids)
   d. Sole source specification of materials or products
   e. Delays beyond the project schedule or bid date
   f. Accelerated completion schedule

b. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

Prepared By:

Reinhardt Associates Inc.

My-Ron Hatchett, AIA
Project Director

PROBABLE BUDGET ESTIMATE OF PROJECT COSTS

OPTION 3, Phase 2 - Alteration and Addition to Town Hall

The following Probable Estimate of Project Costs are based on Building Assessment and Schematic Drawings prepared by Reinhardt Associates, Inc. dated April 15, 2013.

1.	**GENERAL CONSTRUCTION**			
	a.	Construct 1,678 SF 1 st Floor Addition-Steel Frame x $135 / SF	$226,530.00	
	b.	Construct 350 SF 2 Story Addition-Brick/Block x $198 / SF	$69,300.00	
	c.	Renovate 12,435 SF 1st & 2nd Floor x $145 / SF	$1,803,075.00	
		Sub-Total:		$2,098,905.00
2.	**CONSTRUCTION FACTORS**			
	a.	Asbestos Abatement (Allowance)	$20,000.00	
	b.	Design/Construction Phase Contingency @ 5% =	$104,945.00	
		Sub-Total:		$2,223,850.00
	c.	Escalation to Mid Point Construction (11/13) @ 3% =	$66,716.00	
		Sub-Total:		$2,290,566.00
	d.	ConstructionChange Contingency @ 6% =	$137,434.00	
3.	**TOTAL PROBABLE CONSTRUCTION BUDGET**			**$2,428,000.00**
4.	**PROJECT DEVELOPMENT**			
	a.	Architectural/Engineering Fee @ 9.2%	$223,376.00	
	b.	Site/ Property Survey	N/A	
	c.	Hazmat Survey	$4,500.00	
	d.	Geotechnical Engineer/ Borings	N/A	
	e.	Construction Materials Testing	$3,000.00	
	f.	Legal	TBD	
	g.	Printing/Reproduction	$9,000.00	
	h.	Legal Advertising/Bidding	$500.00	
	i.	Owner's Project Manger	$60,000.00	
	j.	Moving/Relocation Expense	By Town	
	k.	Furnishing/Equipment	By Town	
		Sub-Total:	$300,376.00	
5.	**TOTAL PROBABLE ESTIMATE OF DEVELOPMENT/CONSTRUCTION COSTS**			**$2,428,000.00**

6. **PROPERTY ACQUISITION**

a. N/A $0.00

7. **TOTAL PROBABLE ESTIMATE OF PROJECT COSTS** **$2,428,000.00**

8. **QUALIFICATIONS**

a. This Estimate of Probable Project Cost is based on Following assumptions:

1. Normal Construction schedule has been used to prepare the Estimate.
2. Premium time costs are not included. Costs are based on forty hour work week, Mon. thru Fri.
3. This estimate is based on prevailing wage rates.
4. No costs are included for disposal or remedial work on contaminated soil or underground fuel tanks.
5. Items that could impact this Estimate are:

   a. Unforeseen subsurface conditions
   b. Restrictive technical specification
   c. Non-competitive bid conditions (less than six qualified bids)
   d. Sole source specification of materials or products
   e. Delays beyond the project schedule or bid date
   f. Accelerated completion schedule

b. This opinion of Probable Budget Estimate of Project Cost is made on the basis of the experience, qualifications and best judgment of RAI's professional staff. This Estimate is for budget purposes only; actual construction value is determined after the completion of the Construction Documents and the Bid Award process. Variance of +/- 5% of the estimate amount is probable.

Prepared By:

Reinhardt Associates Inc.

My-Ron Hatchett, AIA
Project Director

Code Analysis worksheet for the 2009 International Existing Building Code with Massachusetts Amendments

Existing:

- The original building, circa 1938, is a two story wood framed structure. The exterior façade is a red brownstone. The hipped roof is shingled and in the southeast corner there is an open air bell tower that also has a hipped roof.

  In 1966 a single story steel framed addition was constructed on the north and wide sides of the original building. The addition has a brownstone panel and brick veneer. The roof is flat and has mechanical equipment installed on it.

  The total square footage of the building (original and addition) is approximately 15,500. The will be no change in the use or occupancy of the building.

Planned:

- The proposed modifications to the building consists of the following:
  - reconfiguration of the non-loadbearing interior partition walls;
  - installation of a new fire protection (sprinkler) system;
  - construct a new 550 square foot elevator/stair addition on the north side of the building;
  - construct a new 1,560+/- square foot single story steel framed addition on the south side of the building.

Summary

Chapter 1 (Applicable to all three compliance methods):

- 101.4.1: The existing structure has been continuously occupied.
- 101.4.2: The occupancy of the building will not change.
- 101.5.2: The repair, alteration and additions to the existing building shall comply with the Work Area compliance method.

Prescriptive Compliance Method:

- 302.1: The (2) horizontal additions will comply with the structural requirements of the Massachusetts State Building Code, 8th Edition, including the 2009 International Building Code, for new construction.
- 302.3: The existing gravity load-carry members are not impacted by either of the additions.
- 303.3: The existing gravity load-carry members impacted by the installation of the new fire suppression system will be analyzed to confirm that they have sufficient capacity. Any remedial measures will be incorporated into the Contract Documentation.
- 303.4: The existing lateral load-carry members are not impacted by the alterations or either of the additions.
- 304.1: The structural repairs to the stone arch will comply with this section.
- 307.1: No Change of Occupancy is planned.

Work Area Compliance Method:

- 402.2: Repairs shall comply with the provisions of Chapter 5.
- 403.1: Level 3 Alteration. Work Area exceeds 50% of aggregate area of the building.
- 406.1: No Change of Occupancy is planned.
- 407.2: The (2) proposed additions shall comply with the provisions of Chapter 10.
- 707.2: New structural elements shall comply with the structural requirements of 780 CMR & 2009 IBC
- 707.3: New loads from fire suppression system will be considered.

- 707.4: The existing gravity load-carry members impacted by the installation of the new fire suppression system will be analyzed to confirm that they have sufficient capacity and stress increase < 5%.
- 801.2: Alterations will comply with Level 1 and 2 requirements.
- 902.1: No Change of Occupancy is planned.
- 1001.1: The (2) proposed additions shall comply with the structural requirements of 780 CMR & 2009 IBC.
- 1003.3.2: The structural systems of the (2) additions shall be framed independently of the exiting structure.

Chapter 1: Scope and Administration		
Section	**Title**	**N/A and comments**
101	**GENERAL**	
101.5.4.0	**Mass amendment – Investigation and Evaluation.** Subject to Mass amendment 107.6 to the IBC, a written report is required to be submitted to the Building Official.	N/A
101.9	**Cumulative effects.**	
101.9 Exceptions	**Cumulative effects must be considered except when <u>all</u>:** 1. Structural work does not involve more than 2% of the total tributary area of horizontal framing members of any existing framed floor or roof. 2. Structural work does not alter shear walls above the foundation. 3. Structural work does not alter columns or diagonal braces. 4. Structural work does not create an opening in any framed floor or roof that has an area more than 2% of the framed floor or roof. 5. Structural work does not alter any floor or roof diaphragm and its connections such that in-plane shear resistance is reduced by more than 5%. 6. Structural work does not remove or reconfigure lateral load resisting frames, or foundations supporting them.	None Apply
101.10	**Masonry walls.**	

Chapter 3: Prescriptive Compliance Method		
Section	**Title**	**N/A and comments**
302	**ADDITIONS**	
302.1	**General.**	Will Comply
302.2	**Flood hazard area.**	N/A
302.3	**Existing structural elements carrying gravity loads.**	N/A
302.3.1	**Design live load**	Ground Snow: 55 psf; Wind: 100 mph
302.4	**Existing structural elements carrying lateral load**	None present. The (2) additions will comply.
302.4 Exception	Is increase in demand capacity ratio (DCR) of existing lateral load-carrying elements with addition considered ≤ 10%?	N/A
302.4.1	**Seismic**	Loads to be taken out in with lateral bracing systems of the (2) additions.
303	**ALTERATIONS**	
303.1	**General.**	N/A
303.2	**Flood hazard area.**	N/A
303.3	**Existing structural elements carrying gravity loads.**	The existing gravity load-carry members impacted by the installation of the new fire suppression system will be analyzed to confirm that they have sufficient capacity.
303.3.1	**Design live load**	N/A
303.4	**Existing structural elements carrying lateral load** Does the alteration: ▪ increase design lateral loads? or ▪ create a structural irregularity? or ▪ decrease the capacity?	Will not increase lateral load. Will not create irregularity. Will not decrease capacity.
303.4 Exception	Increase in demand capacity ratio (DCR) of existing lateral load-carrying elements with addition considered ≤ 10%?	N/A
303.4.1	**Seismic**	N/A
303.5	**Voluntary seismic improvements**	No
304	**REPAIRS**	
304.1	**General.**	
304.2	**Substantial structural damage to vertical elements of the lateral-force resisting system.**	N/A

304.3	**Substantial structural damage to gravity load-carrying components.**	N/A
304.4	**Less than substantial structural damage.**	N/A
304.5	**Flood hazard area.**	N/A
307	**CHANGE OF OCCUPANCY**	
307.1	**Conformance**	No Change
307.4	**Structural**	N/A
307.4 Exceptions	1. Level of performance and seismic safety equivalent to a new structure? 2. Occupancy category I or II to III and $S_{DS} < 0.33$?	N/A
308	**HISTORIC BUILDINGS**	
308.1	**Historic buildings.**	N/A
308.2	**Flood hazard areas**	N/A

Chapter 4: Classification of Work (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
402	**REPAIRS**	N/A
403	**ALTERATIONS—LEVEL 1**	N/A
404	**ALTERATIONS—LEVEL 2**	N/A
405	**ALTERATIONS—LEVEL 3**	Work Area exceeds 50% of aggregate area of the building.
406	**CHANGE OF OCCUPANCY**	No Change
407	**ADDITIONS**	Will comply with provisions of Chapter 10
408	**HISTORIC BUILDINGS**	N/A
409	**RELOCATED BUILDINGS**	N/A

Chapter 5: Repairs (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
501	**GENERAL**	
501.1	**Scope**	No Structural Repairs Planned
501.2	**Conformance**	N/A
501.3	**Flood hazard areas**	N/A
502	**BUILDING ELEMENTS AND MATERIALS**	
502.1	**Existing building materials**	N/A
502.2	**New and replacement materials**	N/A
506	**STRUCTURAL**	
506.1	**General**	No Structural Repairs Planned
506.2.1	**Repairs for less than substantial structural damage** (refer to definition of "substantial structural damage" in Chapter 2)	N/A
506.2.2	**Repairs for substantial structural damage to vertical elements of the lateral-force-resisting system**	N/A
506.2.2.1	**Evaluation** (determine whether building in predamaged state would comply with the IBC with reduced seismic forces per 101.5.4.2)	N/A
506.2.2.2	**Extent of repair for compliant buildings** (if predamaged building was compliant with IBC per the evaluation, may repair to the predamaged state)	N/A
506.2.2.3	**Extent of repair for noncompliant buildings** (specific requirements depending upon reason for damage)	N/A
506.2.3	**Substantial structural damage to gravity load-carrying components** (repaired gravity components must comply with dead and live load requirements of IBC; snow loads must be considered if snow caused damage; undamaged gravity-load components that receive loads from damaged components must also comply)	N/A
506.2.4	**Flood hazard areas**	N/A

Chapter 6: Alterations—Level 1 (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
601	**GENERAL**	
601.3	**Flood hazard areas**	N/A
606	**STRUCTURAL**	
606.1	**General**	N/A
606.2	**Addition or replacement of roofing or replacement of equipment**	N/A
606.2 Exceptions	1. Dead load increase ≤ 5%? 2. Conventional light-frame construction and dead load increase ≤ 5%? 3. Second layer of roofing ≤ 3 psf?	None Apply
606.2.1	**Wall anchors for concrete and masonry buildings**	N/A
606.3	**Additional requirements for reroof permits**	N/A
606.3.1	**Bracing for unreinforced masonry bearing wall parapets**	N/A
606.3.2	**Roof diaphragms resisting wind loads in high-wind regions** 1. Basic wind speed greater than 90 mph and occupancy category type III or IV 2. Basic wind speed is greater than or equal to 105 mph	N/A

Chapter 7: Alterations—Level 2 (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
701	**GENERAL**	
701.2	**Alteration Level 1 compliance** (all Level 2 work must also comply with Level 1 requirements)	N/A
701.3	**Compliance** (all new construction must comply with IBC)	N/A
707	**STRUCTURAL**	
707.2	**New structural members**	New elements shall comply with the structural requirements of 780CMR & 2009 IBC
707.3	**Minimum design loads**	New loads from fire suppression system will be considered.
707.4	**Existing structural elements carrying gravity load**	The existing gravity load-carry members impacted by the installation of the new fire suppression system will be analyzed to confirm that they have sufficient capacity and stress increase ≤ 5%
707.4 Exceptions	1. Stress increase ≤ 5%? 2. Group R Less than 5 units? And conventional light-frame construction?	Elements found to have a stress increase > 5% will be reinforced/supplemented. New elements shall comply with the structural requirements of 780CMR & 2009 IBC
707.5	**Existing structural elements resisting lateral load**	N/A
707.5.1	**Irregularities**	N/A
707.6	**Voluntary lateral-force-resisting system alterations**	N/A

Chapter 8: Alterations—Level 3 (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
801	**GENERAL**	
801.2	**Compliance** (all Level 3 work must also comply with Levels 1 and 2 requirements)	Will comply with Level 1 and 2 requirements.
807	**STRUCTURAL**	
807.1	**General**	Alterations shall comply with the provisions of this section.
807.2	**New structural elements**	New elements shall comply with the structural requirements of 780CMR & 2009 IBC
807.3	**Existing structural elements carrying gravity load**	The existing gravity load-carry members impacted by the installation of the new fire suppression system will be analyzed to confirm that they have sufficient capacity and stress increase ≤ 5%
807.4	**Structural alterations**	Elements found to have a stress increase > 5% will be reinforced/supplemented. New elements shall comply with the structural requirements of 780CMR & 2009 IBC
807.4 Exceptions	1. Group R? Less than 6 units? And conventional light-frame construction? 2. Alterations on lowest story only? And no change of occupancy?	N/A
807.4.1	**Evaluation and analysis**	Will comply
807.4.2	**Substantial structural alterations**	N/A
807.4.3	**Limited structural alteration**	N/A

Chapter 9: Change of Occupancy (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
902	**SPECIAL USE AND OCCUPANCY**	
902.1	**Compliance with the building code** (changes to certain occupancies require full compliance with the IBC)	No Change in Occupancy
902.2	**Underground buildings**	N/A
907	**STRUCTURAL**	
907.1	**Gravity loads**	N/A
907.1 Exception	Stress increase ≤ 5%?	N/A
907.2	Snow or wind loads	N/A
907.2 Exception	Is new occupancy with higher importance factor ≤ 10% of the total floor area?	N/A
907.3	**Seismic loads**	N/A
907.3.1	Compliance with the IBC level seismic forces	N/A
907.3.1 Exceptions	1. Group M building to start with and is < six stories and in Seismic Design Category A, B, or C? 2. Equivalent level of performance and seismic safety approved by the building official? 3. Is occupancy with the higher hazard category ≤ 10% of total building floor area and not classified as Occupancy Category IV? 4. Unreinforced masonry in Occupancy Category III and in Seismic Design Category A or B? If so may use Appendix A1.	N/A
907.3.2	**Access to Occupancy Category IV**	N/A

Chapter 10: Additions (Work Area Compliance Method)		
Section	**Title**	**N/A and comments**
1001	**GENERAL**	
1001.1	**Scope** (additions to comply with IBC; only that portion of existing building impacted by addition needs to comply with IEBC unless otherwise specified in IEBC)	The (2) proposed additions shall comply with the structural requirements of 780 CMR & 2009 IBC
1003	**STRUCTURAL**	
1003.1	**Compliance with the IBC**	Required
1003.2	**Additional gravity loads**	None
1003.2 Exceptions	1. Stress increase ≤ 5%? 2. Group R? Less than 6 units? And conventional light-frame construction?	N/A
1003.3	**Lateral force-resisting system.**	N/A
1003.3 Exceptions	1. Group R? Less than 6 units? And conventional light-frame construction? 2. Lateral-force story shear increase in any story ≤ 10% cumulative	None Apply
1003.3.1	**Vertical additions**	N/A
1003.3.2	**Horizontal additions**	Additions shall be independent of the exiting.
1003.3.3	**Voluntary addition of structural elements to improve the lateral-force-resisting system**	N/A
1003.3.4	**Irregularities**	None
1003.4	**Snow drift loads**	N/A
1003.4 Exceptions	1. Element stress increase ≤ 5%? 2. Group R? Less than 6 units? And conventional light-frame construction?	N/A