

WESTFORD

PUBLIC SAFETY FEASIBILITY STUDY

March 14, 2015



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Acknowledgements

ACKNOWLEDGEMENTS

Dore & Whittier Architects, Inc. would like to acknowledge the following individuals for their dedication to the Town of Westford and for their assistance to the Design Team.

Members of the Town of Westford Government

Jodi Ross, Town Manager	Andrea Peraner-Sweet, Board of Selectmen Clerk
John Mangiaratti, Assistant Town Manager	Don Siriani, Board of Selectmen
Scott Hazelton, Board of Selectmen Chair	Jim Sullivan, Board of Selectmen
Kelly J Ross, Board of Selectmen Vice Chair	

Members of the Permanent Town Building Committee

Thomas J Mahanna, PTBC Chair	Morgan D Fannon
Karen A Cavanagh	Gary Lavelle
Nancy J Cook	Jeanne K Roberts
Paul L Davies	Kirk Ware
Thomas E Ellis	

Members of the Working Group

Joseph Targ, Fire Chief
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Tim Whitcomb, Operations Administrator
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Westford Fire Department
Westford Police Department



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Executive Summary

EXECUTIVE SUMMARY

Background

On 22 July, 2014 Dore & Whittier Architects, Inc. agreed to conduct a Feasibility Study of the Westford Fire Department's Center Station located at 51 Main Street. The purpose of the study, as indicated in the Request for Qualifications issued by the Permanent Town Building Committee and dated 1 May, 2014, is to complete an analysis of the alternatives for reconfiguration, relocation, or reconstruction of the Center Station. The study also examines the feasibility of consolidating the current emergency communications operations, and relocating the Town's Technology Department from their current location in the former Forge Village substation.

Our objective, based on the Scope of Services outline in the RFQ, is to determine the long term facility needs for a Fire Department headquarters, investigating alternative locations for this facility, and developing an initial program for the appropriate size of the facility that will meet those needs. In addition, this study is to investigate the feasibility of relocating the Town's Technology Department from its current location to the new facility. The study is also to include review of the current emergency communications operations for both the Fire Department and Police Department and provide recommendations on whether the operations for both departments should be combined into a single, cost efficient operation in either the existing Police Station, an addition to Police Station, or the new Fire Department Headquarters.

Introduction

For a number of reasons which are outlined in this report, the existing Central Fire Station has reached the limit of its useful life and no longer adequately accommodates the needs of the department. The station is outdated, undersized, energy inefficient, and does not comply with current codes. This study outlines an initial design intended to guide decision making for the development of a future facility.

Response Time Analysis

In order to determine which sites might be most favorable for a new Central Fire Station, a response time analysis was conducted calculating travel times from each of the existing three stations to incidents that had occurred in 2012 and 2013 (available full years of data). The Central Fire Station was replaced in the analysis each time with one of the alternate sites designated by the Permanent Town Building Committee (PTBC). The computer model was also given the freedom to determine alternate sites based on specific criteria. The analysis determined that a location between 140-180 Littleton Road would produce the "optimal" location for a newly constructed Central Fire Station. However, a review of the site determined that, despite its theoretical benefits, the site is not suitable for a fire station. Outside of the determined "optimal" site along 140-180 Littleton Road, the Town owned Boston Road site, parcel 022 0003 0004, is most favorable based upon response times and has a similar workload ratio as the current station deployment.

Regulatory Requirements

An overview of site specific zoning requirements is outlined in this document including required setbacks, maximum building heights & areas, and parking regulations. Also, a preliminary review of existing environmental conditions has shown that the site has no vernal pools; no “Estimated Rare Wildlife Habitats”; no wetlands; no rivers, streams, ponds, marshes, or bogs; and no FEMA designated flood zones or “Areas of Minimal Flood Hazard”.

Sustainability Initiatives

Westford is a designated Massachusetts Green Community, which qualifies the Town for grants that finance additional energy efficiency and renewable energy projects at the local level. The Town has also adopted the Massachusetts Stretch Energy Code, which requires a 20% or greater reduction of energy usage beyond the base energy code. In order to meet the goals associated with these programs, as well as to reduce the long-term operating costs of the facility and to provide a healthy environment for staff and the community, an integrated and holistic design approach will be used to develop the new facility. This approach, which will also utilize the U.S. Green Building Council’s LEED certified standards, encourages compromise & tradeoffs and positively impacts all phases of a building's life-cycle.

Programming Development

The goal of the Programming Phase is to collect data to define space and operational needs. Programming questionnaires were completed by each department to identify the size and layout requirements of each space in the building. A Space Needs Analysis and individual Room Diagrams were then developed from the questionnaires and revised with feedback from the departments. This information was then used to develop the preliminary design concepts included in this report.

Preliminary Design Overview

Based on the work done in the Programming Development Phase, the required spaces were compiled into loose adjacency diagrams to help identify building operations & flow, arrangement of public vs. private spaces, and the organization of occupied spaces vs. infrastructure spaces. After the adjacencies and operational issues were reviewed and understood, conceptual plans were developed with input from the Fire and Police Departments, as well as from the Building Committee.

Once Schematic Design has been approved, formal Geotechnical and Civil surveys will be conducted, along with additional engineering and architectural analyses, which will facilitate the development of the project from concept into a detailed set of plans and specifications that will be developed for final pricing and construction. Along the way, the design process will include a number of checks and balances that include ongoing collaboration and feedback with departmental and Town officials, as well as multiple budget reviews.

Existing Facility Assessments

Reviews of the existing facilities were conducted prior to start of Programming and Design. These reviews include evaluations of space use, ADA regulations, and code requirements, as well as assessments of the existing Fire Protection (Police Station only), Plumbing, HVAC, Electrical, and Communication Systems.

A hazardous materials survey of the existing Fire Station was also conducted, which included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination of types of ACM found and cost estimates for remediation. A Phase I-Environmental Site Assessment was also conducted.

The results and subsequent recommendations for all of these evaluations are outlined in this report.

Preliminary Cost Estimate

A summary of Estimated Project Costs has developed for the Westford Fire Study. The options developed are conceptual in nature and therefore the estimated costs are intended to provide a preliminary order of magnitude view at the potential project costs. Project costs consist of estimated site and building construction costs, design and construction contingencies, phasing, soft costs to cover the values of the design team, Owner's Project Manager, investigative services, etc. and fixtures, furniture, and technology costs.

The Project Costs have been escalated 5% to reflect a March 2016 construction bid which is consistent with current construction market understanding. This by no means takes into account unknown situations that could negatively affect the market which may further increase costs beyond those presented in this document.

Documentation

This report is based on information gathered by Dore & Whittier Architects, Inc. and its consultants through visual observations of the existing buildings and sites, as well as discussions with the Town of Westford.

During this study, a general review of the following codes and their related regulations and standards was also performed:

- Americans with Disabilities Act Guidelines – ADAAG (ADA)
- Massachusetts Architectural Access Board (MAAB – 521 CMR))
- International Building Code (IBC) with MA Amendments (780 CMR)
- International Energy Conservation Code (IECC)
- International Mechanical Code (IMC)
- International Fire Code (IFC)
- MA Fire Prevention and Electrical Regulations (527 CMR)
- MA Plumbing Regulations (248 CMR)
- MA Elevator Regulations (524 CMR)
- 8th Edition of the Massachusetts State Building Code
- Massachusetts Stretch Energy Code

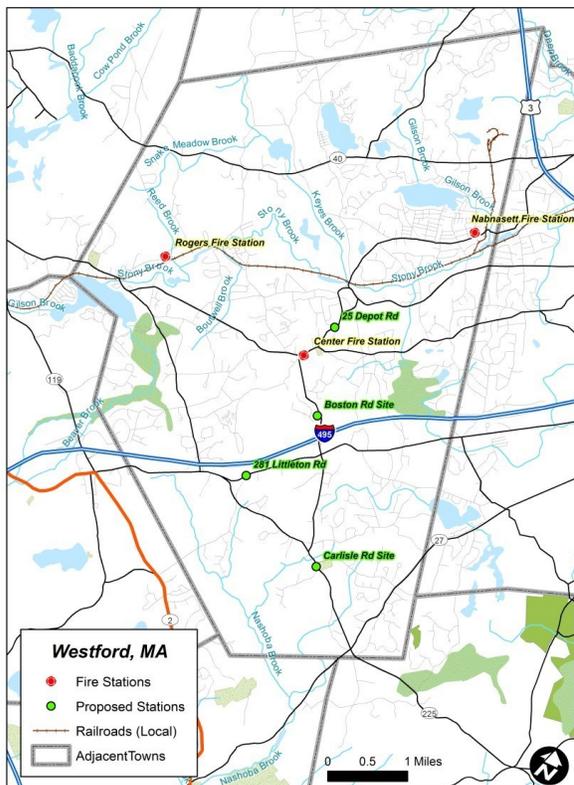
Response Time Analysis

RESPONSE TIME ANALYSIS

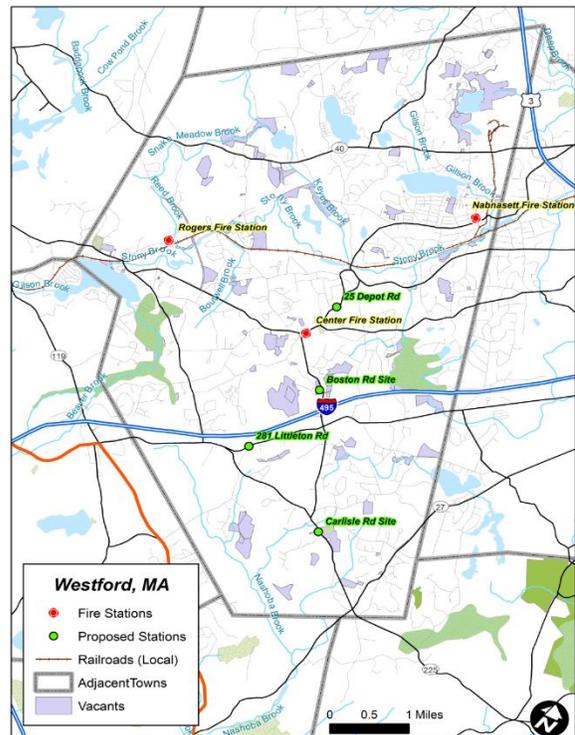
Overview

The Permanent Town Building Committee (PTBC) of the Town of Westford, Massachusetts is considering relocating its Central Fire Station. In the September 8th, 2014 meeting minutes, the following locations were considered viable alternative sites for the fire station (in addition to an ‘optimal’ location to be determined).

- 281 Littleton Rd
- 66-68 Boston Rd
- Boston Road Parcel 22-3-4
- 25 Depot Rd
- Carlisle Rd at Jack Walsh Field



Currently, there are three fire stations in the Town of Westford. Each is staffed by fulltime personnel. The following map illustrates their locations and the potential alternative sites for center fire station relative to the Town’s borders and the road network.

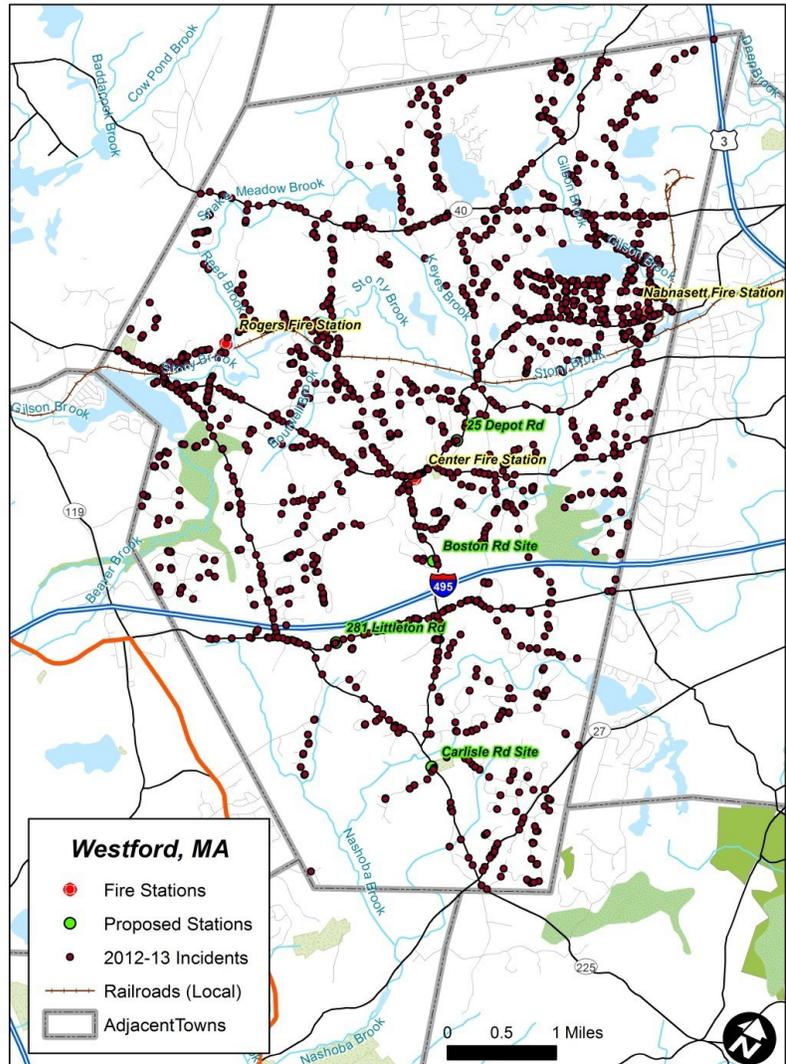


It should be noted that the 66-68 Boston Rd address is the same as the identified Boston Road parcel. Also, of the available vacant parcels owned by the Town and set aside for another purpose, none were found located on a main route or not proximal to the town border (not centered). Therefore, no other location was specifically determined by examination of available vacant lots.

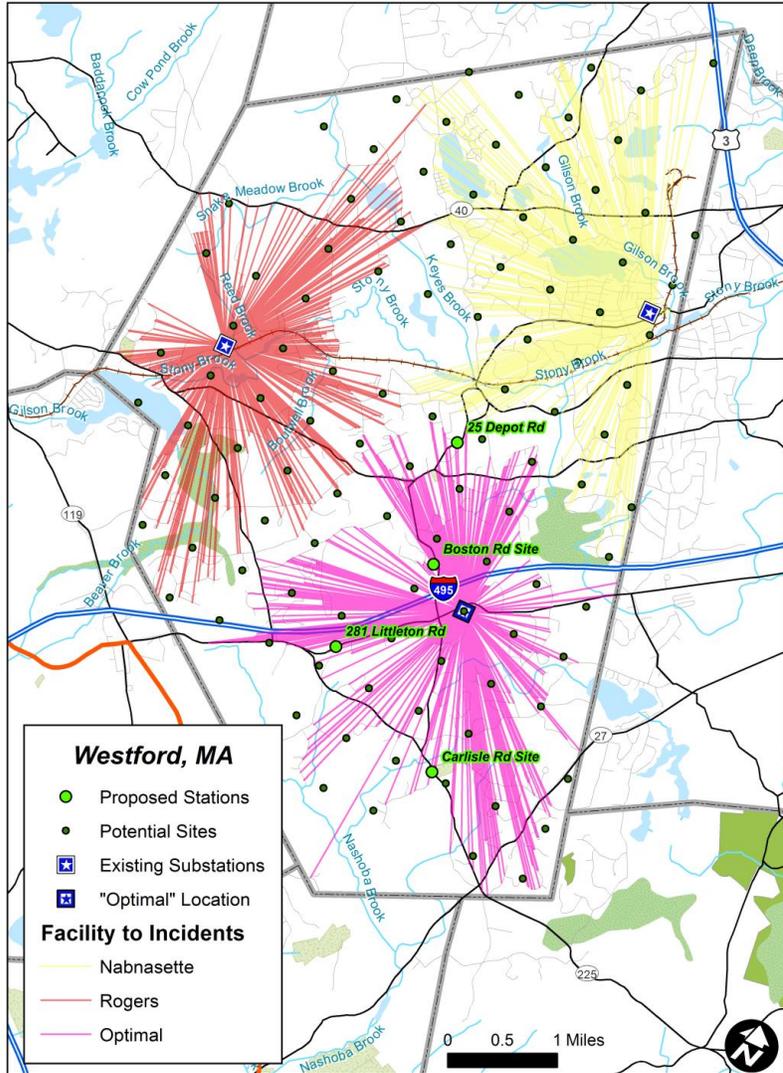
Alternate Site Review

In order to determine which of the alternative sites might be most favorable, a response time analysis was conducted calculating travel time from each fire station to incidents that had occurred in 2012 and 2013 (available full years of data). The Central fire station was replaced in the analysis each time with one of the alternate sites. The following figure illustrates the breadth of EMS and fire incidents within the Town of Westford during this time period (note that multiple incidents at the same address are shown as a single dot on this map, but were captured as multiple occurrences in our analyses):

Regardless of available vacant lots, a technique of half mile points near the roadway network was utilized to select an optimal location for this third station -- a location given the geographic that would work well to balance current sub-station locations and the extent of the service demand and the locations of the substations. The map, that follows, depicts the half-mile grid that was laid across the Town's road network. Each of these locations were tested to attempt to identify an optimal location for the Central Fire Station.



This analysis determined that a location along the 140-180 Littleton Road would produce the optimal location for a newly constructed Central Fire Station. Review of the site demonstrated that, despite its theoretical benefits, the site is not suitable for a fire station due to the road network and current commercial uses on the site. The following table details the results of the travel time analysis of each alternative central station site along with the current two substations, Nabnasett & Rogers. It can be seen that, outside the determined optimal site along 140-180 Littleton Road, the Boston Road site is most favorable based upon response time and has a similar workload ratio as the current station deployment. The most equal share of workload occurs with the Carlisle Road site but has the response time trade-offs. Note that we do not recommend station locations for the sole purpose of balancing workload, except in very busy urban agencies:



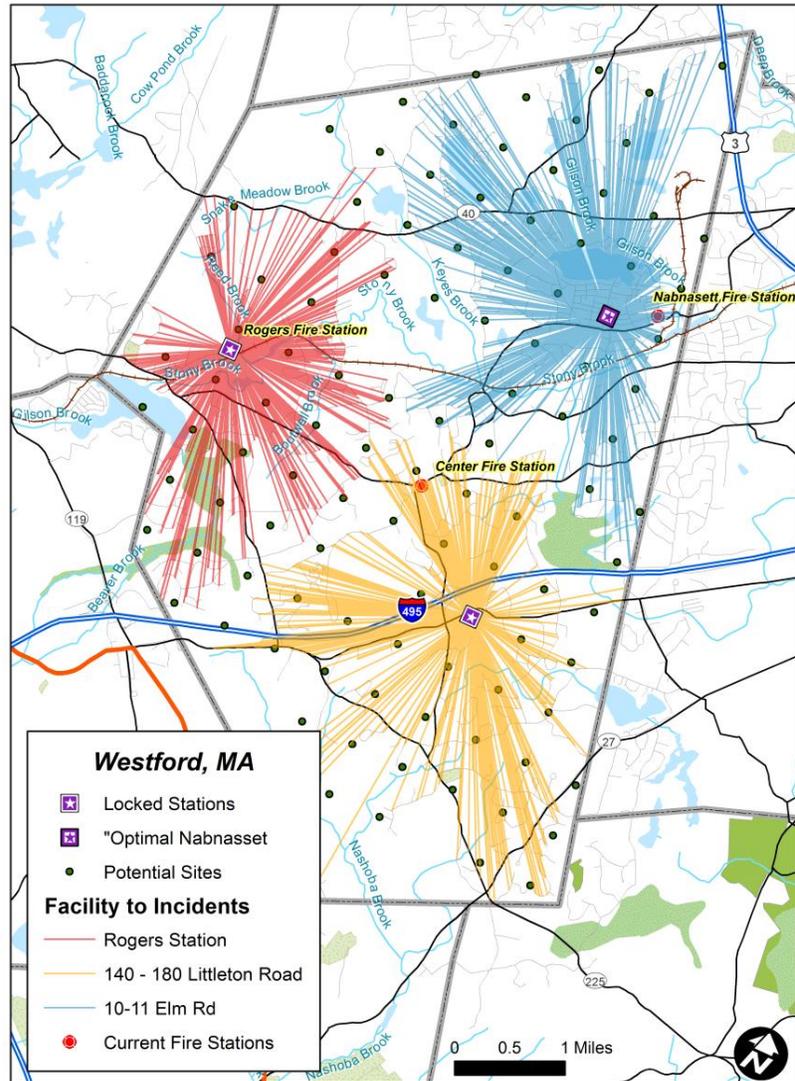
Note that we do not recommend station locations for the sole purpose of balancing workload, except in very busy urban agencies:

3976 Incidents With current Substations	Cumulative Response Time (hrs)	Response Time Saved (hrs)	Average Response Time (mins)	Workload Ratio		
				Alternative	Nabnasett	Rogers
Center Station	261	47	3.93	54%	24%	23%
Boston Rd Site	220	7	3.33	51%	26%	22%
Carlisle Rd Site	263	50	3.97	36%	31%	33%
25 Depot Rd	271	57	4.09	57%	21%	22%
281 Littleton	231	18	3.49	44%	31%	25%
140-180 Littleton Rd	214	0	3.22	46%	29%	25%

Alternative Nabnasset Station

Utilizing the two best locations for an alternative Center Station, (140-180 Littleton & the Boston Road Site) alternative locations for the Nabnasset station was analyzed. In addition to the potential sites established earlier, the current location of the station was left as a candidate location. Perhaps not surprisingly in both scenarios of alternate center stations, the current location of the Nabnasset Station was chosen as the best option. When the current Nabnasset station was removed from consideration, alternative locations selected as the best option were very close the current site, indicating that the current site is a very good one.

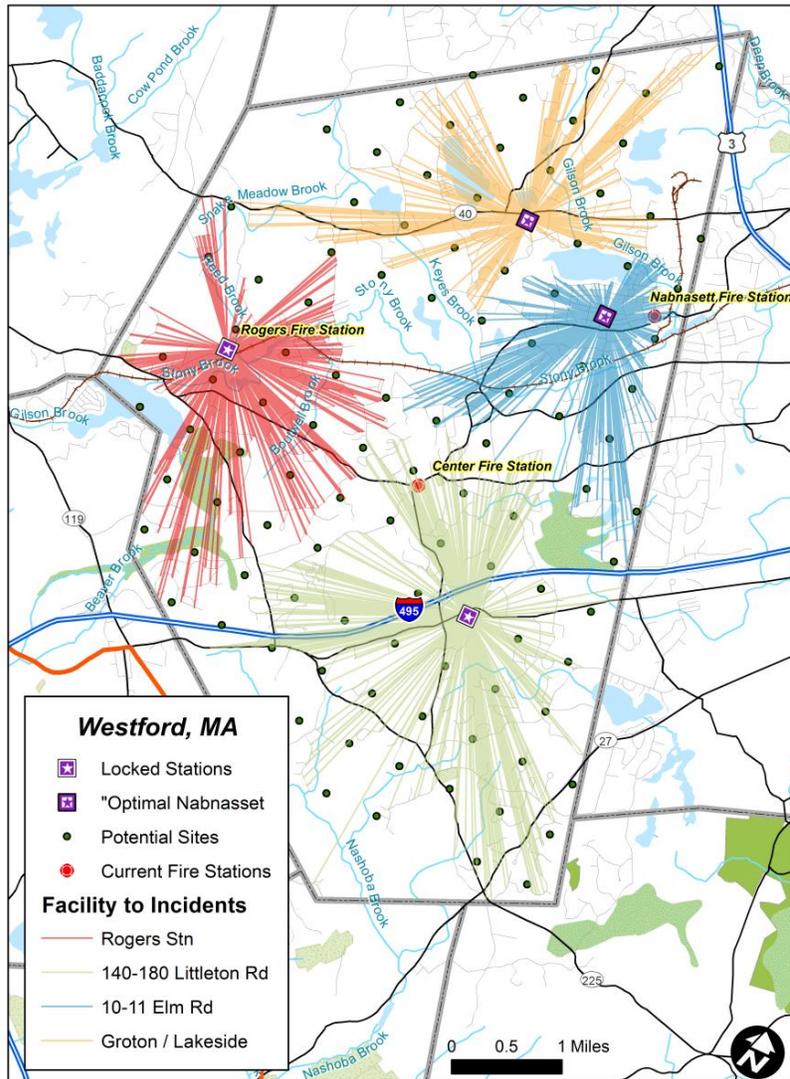
The following figure illustrates the 3-station scenario utilizing the Optimal Center site of 140-180 Littleton Rd and the Rogers Fire Station. The current Nabnasset Station was removed from consideration in this representation, because otherwise it was selected as the best option.



The site selected in the previous figure was 10-11 Elm Road in the area of single family homes and just a half mile from the current Nabnasett Station – however, if the current location was left in the model, it was consistently found to be the best location. The next figure shows the analysis to find four stations, including the current Nabnasett Station as a site candidate:

Surprisingly, the Elm Road Site was selected over the current location. The fourth station site selected is near the intersection of Groton Road and Lakeside Terrace. There is a vacant parcel nearby. The following table details the statistical coverage of an alternate Nabnasett Station utilizing the optimal center Station location at 140-180 Littleton Road.

There is little significant change in coverage in the 3-station scenario. Of course, response times decline slightly and the Nabnasett workload is split when a fourth station is inputted into the deployment of resources (with little impact on the other stations and their workload).

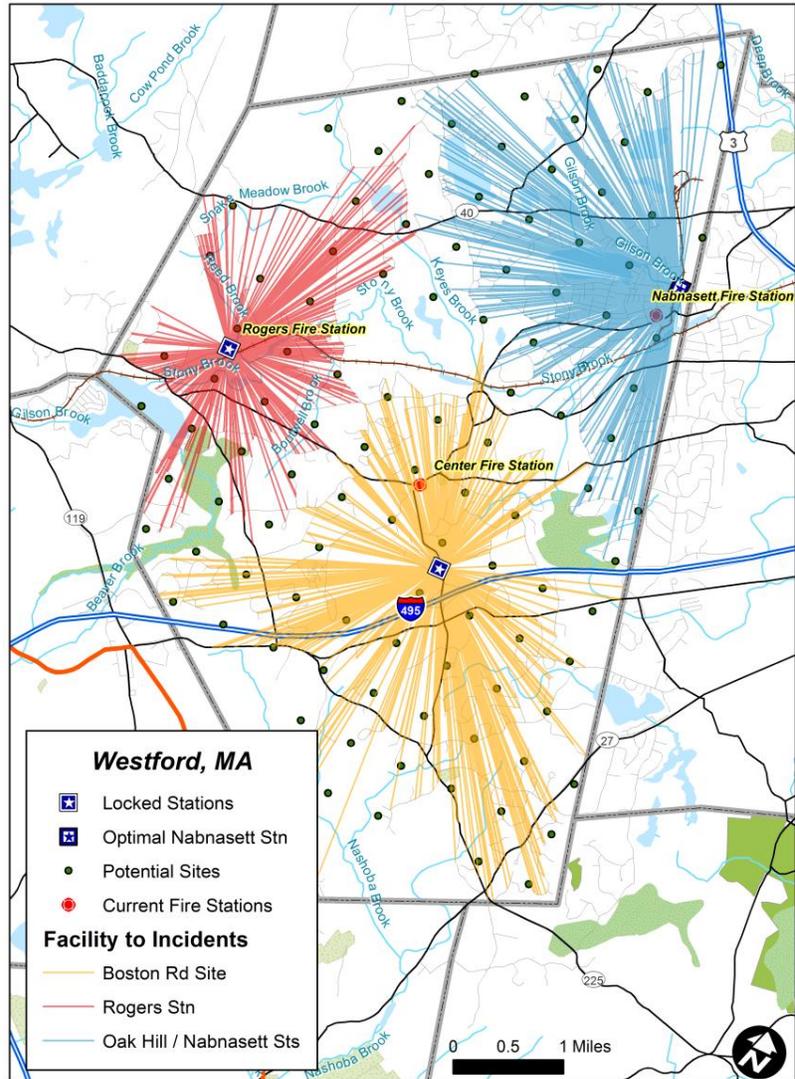


3976 Incidents	Cumulative	Response Time	Average Response	Workload Ratio			
Three Station Scenario	Response Time (hrs)	Saved (hrs)	Time (mins)	Optimal Center	Alternative	Rogers	Stn 4
10-11 Elm St	214	0	3.23	46%	30%	24%	n/a
Current Nabnasett Station	214	0	3.22	46%	29%	25%	n/a
Four Station Scenario				Optimal Center	Elm Road	Rogers	Stn 4
Groton Rd/Lakeside Terrace	186	28	2.81	46%	18%	22%	14%

Next, we shifted our analyses to utilize the Boston Road site as the new Center Station site. Once again, the current Nabnasett Station was selected when included as a candidate site. When it was removed from consideration, a site near the golf course very nearby on Nabnasett Road and Oak Hill Road junction was selected. This is depicted in the following exhibit:

Interestingly however, when a fourth station scenario was introduced and the current Nabnasett station was included as a candidate, both four station scenarios picked the same alternate sites as the best options.

Once again, there is little significant change in coverage in the 3-station scenario. Of course, response times decline and the Nabnasett workload is split when a fourth station is inputted into the deployment of resources.



3976 Incidents	Cumulative	Response Time	Average Response	Workload Ratio			
Three Station Scenario	Response Time (hrs)	Saved (hrs)	Time (mins)	Boston Rd	Alternative	Rogers	Stn 4
Oak Hill/Nabnasett St	222	0	3.35	51%	26%	22%	n/a
Current Nabnasett Station	220	2	3.33	51%	26%	22%	n/a
Four Station Scenario				Boston RD	Elm Road	Rogers	Stn 4
Groton Rd/Lakeside Terrace	186	34	2.81	46%	18%	22%	14%

Regulatory Requirements

REGULATORY REQUIREMENTS (BOSTON ROAD PARCEL 022 0003 0004)

Zoning Requirements Summary

Site Specific Zoning Requirements:

Historic Site:	no
Min Lot Area:	40,000 sf
Min Lot Frontage:	200 ft.
Min Front Yard:	50 ft. (corner lot)
Min Side Yard:	50 ft. (corner lot)
Min Rear Yard:	same as Front Yard (corner lot)
Max Building Height:	35 ft.
Max Building Area:	2-1/2 stories (3 stories if setback from each lot line additional 10')
Max lot coverage:	n/a
Min distance between buildings:	20 ft.

Additional Related Requirements:

- Except for a required sidewalk, a landscaped buffer strip at least twenty (20) feet wide, continuous except for approved driveways, shall be established adjacent to any public road to visually separate parking and other uses from the road.
- At least 5% of the interior of the parking area shall be maintained with landscaping.
- Where feasible, the Planning Board may require parking areas to be located to the side or behind buildings so as to provide an appropriate setting for the building within the context of the site and neighborhood.
- Minimum number of required parking spaces as may be determined by the Planning Board during site plan review.

Parking Stall Dimensions	Stall Width	Stall Length
Standard	9 feet	18 feet
Compact	8 feet	16 feet
Accessible	12 feet	18 feet

Preliminary Review of Existing Environmental Conditions

The Boston Road site, as with most of central Westford, is located within Water Resource Protection Overlay District III. The site has no Vernal Pools; no Estimated Rare Wildlife Habitats; no Wetlands; no rivers, streams, ponds, marshes, or bogs; and no FEMA designated Flood Zones or Areas of Minimal Flood Hazard.

Based on thresholds outlined in Massachusetts 301 CMR 11.00: MEPA Regulations, a MEPA review will not be required and there is no requirement to file an Environmental Notification Form (ENF) or an Environmental Impact Report (EIR).

Sustainability Initiatives

SUSTAINABILITY INITIATIVES

Overview

On 12/18/13 the Town received designation as a Green Community from the State of Massachusetts, which qualifies the Town for grants that finance additional energy efficiency and renewable energy projects at the local level. On 10/22/2013 the Town of Westford voted to approve adoption of the Stretch Code at Town Meeting, which then became effective 07/01/2014. In order to meet the goals associated with both of these programs, as well as to reduce the long-term operating costs of the facility and to provide a healthy environment for staff and the community, an integrated and holistic design approach will be used to develop the new facility. This approach, which will also utilize the U.S. Green Building Council's LEED certified standards, encourages compromise & tradeoffs and positively impacts all phases of a building's life-cycle., as described in the following sections.

Approach

Sustainable design seeks to reduce negative impacts on the environment, and the health and comfort of building occupants, thereby improving performance. The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.



Sustainable design principles include the ability to:

- Minimize non-renewable energy consumption
- Use environmentally preferable products;
- Optimize site potential;
- Protect and conserve water;
- Enhance indoor environmental quality; and
- Optimize operational and maintenance practices.



Utilizing a sustainable design philosophy encourages decisions at each phase of the design process that will reduce negative impacts on the environment and the health of the occupants.

Stretch Code

The Stretch Code applies to new commercial buildings and additions over 5,000 ft. These buildings are required to meet a performance standard set at a 20% or greater reduction of energy usage below the base energy code. This is based on predicted energy use compared to the commonly used ASHRAE 90.12007 standard. This method is also used by buildings applying for LEED energy certification. There are two approaches to satisfy the requirements of the Stretch Code for new facilities of the size projected for this project. These buildings can either use the "Large Building

Performance Standard” or use a “Prescriptive” path (a modified version of the base energy code - IECC Chapter 5).

The “prescriptive” path adds incremental efficiency improvements to the base energy code:

- Building envelope elements (better walls, roofs, windows, insulation, etc.)
- Commissioning tests to ensure that building energy systems operate as designed
- More efficient lighting power densities and improved lighting controls
- One of three options: high efficiency HVAC equipment; further lighting energy reductions; or on-site renewable energy

L.E.E.D.

LEED, or Leadership in Energy & Environmental Design, is a green building certification program, sponsored but the U.S. Green Building Council (USGBC), which recognizes best-in-class building strategies and practices. To receive LEED certification, building projects satisfy prerequisites and earn points to achieve different levels of certification. Prerequisites and credits differ for each rating system, and teams choose the best fit for their project. LEED certified buildings save money and resources and have a positive impact on the health of occupants, while promoting renewable, clean energy.



Programming Development

FIRE STATION QUESTIONNAIRE

Name of Department Westford Fire Department

Proposed Name of Station Center Fire Station

The following questionnaire is being provided as a tool to familiarize you with questions, issues, and data that will be discussed in the beginning stages of your project. To be responsible with our client's time, we have developed this form to allow you to prepare and discuss the following materials prior to our meeting. We have found that our meetings are more productive and efficient as a result of this approach.

If more than one person will be providing input into the completion of this form, please compile all the data into one questionnaire to avoid providing conflicting information.

When you have completed this, please fax it to our office in care of the contact person you are working with or the Government Studio at 513-721-8181.

Please contact us if you have any questions filling out this form.

PROJECT MANAGEMENT

Who will manage the project for the Department?

Daily contact with the design team and contractor

Name Joe Targ Title/role Fire Chief

Other members of department building committee and their roles involved in the project:

Name Dan Britko Title/role Capt/Internal Building Committee

Name Dave Greenwood Title/role FF/Internal Building Committee

Name Mark Valcourt Title/role Capt/Internal Building Committee

Name Dave O'Keefe Title/role Capt/Internal Building Committee

Name Paul Lemieux Title/role Lt/Internal Building Committee

Name Joe Delapapa Title/Role FF/Internal Building Committee

PROJECT BUDGET

Total Project Cost = Building Hard Cost + Soft Costs

- The term “**Total Project Cost**” refers to the sum total of all expenses required to design, build, furnish, and move into a completed facility. This typically is divided into two categories, “**Building Hard Costs**” and “**Soft Costs**”.
- “**Building Hard Cost**” describes only the cost of the Prime contracts for construction at the time of the time of bid opening. This cost does not include any of the “Soft Costs”.

- **“Soft Costs”** include all other costs associated with designing, building and moving into a completed facility. This cost does not include any of the “Building Hard Cost”.

Soft Costs include but aren’t limited to: (Check the soft costs that will be included in the Total Project Cost.)

	Hard Cost	Soft Cost	Not Included In Project Cost
Land acquisition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Off-site utility improvements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Specialty equipment (Emergency generator, UPS, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Furnishings, workstations, consoles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Architectural and Engineering fees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Permits – Building, Zoning, Utilities including Tap Fees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Surveys – Boundary and Topographic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental Surveys – Phase 1 and Phase 2 Environmental	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phone system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radio/communication system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kitchen / Break room Equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security/AV Systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Moving costs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utility Costs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Insurance Costs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Construction Contingency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Inspection and testing fees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cost of financing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

What is the expected Total Project Cost? :

Project Cost (Fixed or give a range): estimated 12-15 Mil

Project Cost has not been determined. It will be determined as part of the design process.

What is the anticipated source(s) of funding? Bonding

Has funding been secured? No

PROJECT SITE

Is the land acquisition for this project complete? No

How many acres are available? (Approximately) _____

Describe the previous use for the project site. _____

What other uses are planned for this property other than a Fire Station?

- Combined City/Township Hall Public Safety with police
- Community Park / Recreational
- Public Works / Service / Salt Dome
- Other: (Describe) Depending on site-Combined Dispatch/IT Dept

What Utilities are available to the Project Site?

- | | |
|---|--|
| <input checked="" type="checkbox"/> Water | <input checked="" type="checkbox"/> Telephone |
| <input type="checkbox"/> Sewer | <input checked="" type="checkbox"/> Cable |
| <input checked="" type="checkbox"/> Storm Water | <input checked="" type="checkbox"/> Fiber Optics |
| <input checked="" type="checkbox"/> Electric | <input checked="" type="checkbox"/> Gas |

If possible, provide a list of Utility company contact personnel and contact information.

Who, besides assigned personnel, will require access to site?

- Public (community room) _____
- Maintenance personnel _____
- Other companies _____

Apparatus Maintenance

Where will apparatus refueling occur? at site

Where will apparatus cleaning be done? at site

Who will do routine maintenance of the apparatus?

Fire Department x Contract entity _____ Other _____

Where will routine apparatus maintenance occur? at a sub-station

Parking

(CR can assist with these requirements as part of the programming/needs analysis phase and zoning due diligence.)

Estimated number of spaces required for staff parking. 15

Estimated number of spaces required for visitor parking including possible training or conference activities. 20

DEPARTMENT OPERATIONAL ISSUES

Station Type

Describe your current operations:

Typical service calls and type Fire & EMS

Service area: Fire: 1st due in Parker Village and Center EMS/Rescue: TownWide

Types of structure fires anticipated in service area: (low-rise, high-rise, industrial, residential, etc.) Commerccail, Residential, 3 Hotels

Does the department provide any inspectional services? Yes

Describe EMS or Paramedic services provided (if applicable)
Station will house 2 Paramedic Ambulances

What are your procedures when returning from a call? _____

How do you decontaminate? currently no decon area, wash down in hose tower

How do you restock and store materials? 2 small EMS Closets , New station should have closets in close proximity to ambulances.

Other issues equipment and gear storage

Describe your Hazardous Materials services provided (if applicable): First responder hazmat-awareness and operational

How do you decontaminate? On site if needed

How much foam do you store? 20 Gallons

Other issues _____

Staffing

Is your department volunteer _____ paid professional _____ or combination? X

What are your current staffing levels? 39 Fulltime, 9 per shift, 5 at center plus Chief & Fire Prevention & Office Mgr

What are your anticipated future staffing levels? Adding 2 Firefighter, Assistant Chief, pt office staff

Administrative staff? Office Manager

Shift description- number of firefighters per shift:

<u>Station</u>	<u>Current Shift Size</u>	<u>Future Shift Size</u>
Station # <u>1</u>	<u>5 +dispatcher</u>	<u>7</u>
Station # <u>3</u>	<u>2</u>	<u>2</u>
Station # <u>4</u>	<u>2</u>	<u>2</u>
Station # _____	_____	_____
Station # _____	_____	_____

How many shifts do you have? 4

Other staff that will have potential use of this station (police, health department, clinic, etc.)

Apparatus Bay:

What is the largest length dimension of apparatus that will be needed to serve the community?

Currently in use: Tower 1 +/- 50'

Future anticipated: _____

What are the two most frequently used apparatus? Engine 1 & Medic 1

List other apparatus, trailers and command vehicles. Include length dimensions and frequency of use/first out rank.

Engine 5-Rescue

Ambulance 2

Tower 1

Cars 3 & 14

Swap Loader-currently at sub-station?

Brush truck-currently at sub-station?

Spare Ambulance? (3rd)

How do you anticipate stacking or staging of apparatus? (attach diagram)

Where will hose testing be done? New Station

What is the desired method of vehicle exhaust extraction? Plymovent or equivalent

What is the minimum desired size of doors? 14'x14'

(CR recommends 14'x14')

What are your maintenance and restock procedures?

Air fill Cascade

Training Room:

Is a training room required in this station? Yes

Will the Training Room double as an Emergency Operation Center? Yes/Backup EOC

What training will occur at this station?

- Company training x
- Department training x
- Academy training x
- Other

Is there a full-time training officer assigned to this station? Shift Captain

Does the training officer require support staff?

- Receptionist
- Assistant
- Other

Where will training reference materials be kept?

- Training officer's office x
- Training room x
- Other storage room for props such as mannequins

Will the training room be used for public meetings or seminars? Yes

Is a separate public entrance required for the training room? Yes

Maximum number of people to be seated theater style (chairs only) No

Maximum number of people to be seated classroom style (tables & chairs) 40-50

What material needs to be stored adjacent to the training room?

- Training material X
- Tables & chairs
- Audio/visual equipment X
- Training props X

What equipment is required for the training room?

- Projection screen x
- Marker board x
- Cable TV x
- Food Service
- Other Small kitchen area?

On-site Training, hands-on:

Do you have access to a training facility? Yes
If yes, where and what type of facility? Station 3 Burn Building (limited) with Flashover trailer

What are your on-site training goals? To host Fire Academy classes as a satellite site
Would like 2 smaller break-out training/conference rooms

Ladder _____ Confined Space X Hose line Adv. _____ Draughting _____
Search & Rescue X Tower _____ Vehicle Extrication _____
Other _____

Does the community have specific issues that require special training, such as hazardous material sites, rail yards, etc? Would be site specific

DORMITORY

Exercise Room/ Fitness Facility:

How many people are anticipated to workout at the same time? 4
What equipment will be provided?
(Provide list of equipment and dimensions to the Architect)
Will this area be shared by other city staff or departments? No
If yes, will separate shower and locker area be required? No
Separate entrance? No

Day Room:

How many people will this room serve? 10-15
Open to kitchen or separate room? Separate with large C.O. Connecting
Open to general circulation within private area of station or enclosed? Enclosed
Will this room be used for other functions?
Study _____
Library _____
Training _____
Meetings _____

Will you furnish the dayroom with couches or recliners? included in Project

Kitchen:

How is food bought and stored?

Individual food storage _____

Bought and stored per shift X 4 Refridgerators

How many separate closets / pantries required? 4

Locked? Yes

Separate refrigerators? Yes

Will the station provide food for others during an emergency?

Emergency Operations Center? Yes/Backup

Neighborhood? _____

Will the kitchen be used to prepare meals for events held in training room? No

If so, what is the largest number to plan for?

Is access to a gas grill required? Yes Range-top or exterior? Yes to Both

Dining:

How are meals eaten?

As a company X

As individuals _____

Will dining area be open to kitchen? _____ Day Room? _____

Will the dining area be used for other functions? No

Training classes _____

Public Workshops _____

Meetings or study _____

Locker Room:

Where would you want personal gear lockers located?

X In the Dormitory/ dorm rooms

Locker rooms _____

Other _____

What size lockers are required? (typical 24"w x 24"d) Typical

Estimated quantity of lockers required

Men 4 Per Bunk Room Women _____

How many staff lockers required at this location? 4

Restrooms / Showers:

Determine type of facilities to be provided

Gender Equal: separate but equal facilities _____

Space intensive, but provides complete flexibility in staffing.

Gender Neutral: individual restroom/shower facilities X

Most space efficient and provides complete flexibility in staffing.

Are towels laundered on-site by staff or off-site by laundry service? On site

Sleeping Quarters:

How many personnel are to be accommodated in sleeping quarters?

Current 5

Anticipated future 8

How many beds required?

“Cold-sheet” (one bed for every person assigned to station) _____

“Hot-sheet” (one bed shared by three – change sheets each shift) X

What type of sleeping quarters is desired? Separate

Separate Dorm Rooms

More privacy (gender issues, work/study, dressing, sound barrier)

Lockers can be located in dorm rooms, eliminating locker room

With or without doors X

Bunk Room _____

May require less space, more flexible

Laundry:

Is a dedicated domestic laundry room required? Yes

Will this room be separate from or combined with the turn out gear laundry related to the apparatus bay support? Combined

How is uniform cleaning handled? Industrial washer/dryer in addition to gear washer. part of decon

Will turnout gear be cleaned on-site or off? process, we should be washing contaminated uniforms at

SUPPORT

station(cost of washers vs throwing away uniforms?)

Turnout Gear Storage:

Where do you keep turnout gear when on-duty? Truck bumper

Where do you keep turnout gear when off-duty? Cubical/Cubby

Do you use gear bags? No

How many sets of turnout gear per person? 1

How many sets of active turnout gear will be stored at the station? 30-36

Shop / Tool Room:

Will heavy vehicle maintenance be performed at station? No

Tune-ups, oil changes? No

Repairs? No

Will a repair lift be required? No

Will a repair pit be required? No

What is the minimum clear height required? _____

Will an air compressor be required? Yes Locate inside or outside? Inside

Describe what tools and supplies are to be stored and approximate square footage required.

Work Bench/area for minor equipment repairs

Does the department maintain and repair fire hydrants? No

Janitor Closet:

Describe equipment used in Apparatus Bay.

Mops X

Brooms X

Squeegees X

Buffers _____

Vacuums X

Hose Storage / Tower:

Describe hose material and method of drying. Rubber, No Drying/Hanging

Describe hose storage requirements. Racks

Cleanup Room/ Decontamination:

Indicate which of the following to be provided.

Deep sink with hands-free controls Yes

Shower for personnel and equipment cleaning Yes separate shower for ems equipment like

Special containment sewer system Yes backboards

Where will locked drug storage be located? EMS Storage Room

OTHER ISSUES AND CONCERNS:

The current station lacks many things, some of these are the lack of privacy that leads to health concerns for the Firefighters. Trying to maintain HIPAA Compliance in the current report area can be challenging. The lack file storage and general storage is also lacking. Depending on the site and where Dispatch is located a Alarm Room may be required with a Digitize 3505.

Locked drugs should be in a subdivided area of the EMS supply room. ALS and BLS equipment in a temperature controlled room. Lots of storage space means we can by nonperishable items in bulk and save on shipping cost.

POLICE FACILITY QUESTIONNAIRE (WITH DISPATCH)

Name of Department _____

Proposed Name of Facility _____

The following questionnaire is being provided as a tool to familiarize you with questions, issues, and data that will be discussed in the beginning stages of your project. To be responsible with our client's time, we have developed this form to allow you to prepare and discuss the following materials prior to our meeting. We have found that our meetings are more productive and efficient as a result of this approach.

If more than one person will be providing input into the completion of this form, please compile all the data into one questionnaire to avoid providing conflicting information.

When you have completed this, please fax it to our office in care of the contact person you are working with or the Government Studio at 513-721-8181.

Please contact us if you have any questions filling out this form.

PROJECT MANAGEMENT

Who will manage the project for the Department?

Daily contact with the design team and contractor

Name _____ Title/role _____

Other members of department building committee and their roles involved in the project:

Name _____ Title/role _____

PROJECT BUDGET

Total Project Cost = Building Hard Cost + Soft Costs

- The term **“Total Project Cost”** refers to the sum total of all expenses required to design, build, furnish, and move into a completed facility. This typically is divided into two categories, **“Building Hard Costs”** and **“Soft Costs”**.
- **“Building Hard Cost”** describes only the cost of the Prime contracts for construction at the time of the time of bid opening. This cost does not include any of the “Soft Costs”.
- **“Soft Costs”** include all other costs associated with designing, building and moving into a completed facility. This cost does not include any of the “Building Hard Cost”.

Check category for each item listed below:

	Hard Cost	Soft Cost	Not Included In Project Cost
Land acquisition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off-site utility improvements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specialty equipment (Emergency generator, UPS, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Furnishings, workstations, consoles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Architectural and Engineering fees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permits – Building, Zoning, Utilities including Tap Fees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surveys – Boundary and Topographic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Surveys – Phase 1 and Phase 2 Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phone system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radio/communication system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kitchen / Break room Equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security/AV Systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moving costs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility Costs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insurance Costs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction Contingency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspection and testing fees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of financing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is the expected Total Project Cost? :

- Total Project Cost (fixed or give a range) _____
- Total Project Cost has not been determined. It will be determined as part of the design process.

What is the anticipated source(s) of funding? _____

Has funding been secured? _____

PROJECT SITE

Is the land acquisition for this project complete? _____

How many acres are available? (Approximately) _____

Describe the previous use for the project site. _____

What other uses are planned for this property other than a Police Station?

- Combined City/Township Hall Public Safety with Fire
- Community Park / Recreational
- Public Works / Service / Salt Dome
- Emergency Operations Center (EOC)
- Public Safety Access Point (Dispatch) – refer to Dispatch section of this Questionnaire
- Other: (Describe) _____

What Utilities are available to the Project Site?

- | | |
|---|--|
| <input checked="" type="checkbox"/> Water | <input checked="" type="checkbox"/> Telephone |
| <input checked="" type="checkbox"/> Sewer | <input checked="" type="checkbox"/> Cable |
| <input checked="" type="checkbox"/> Storm Water | <input checked="" type="checkbox"/> Fiber Optics |
| <input checked="" type="checkbox"/> Electric | <input checked="" type="checkbox"/> Gas |

If possible, provide a list of Utility company contact personnel and contact information.

- | | |
|-----------------------------------|---|
| <input type="checkbox"/> Water | <input type="checkbox"/> Telephone |
| <input type="checkbox"/> Sewer | <input type="checkbox"/> Cable/Fiber Optics |
| <input type="checkbox"/> Electric | <input type="checkbox"/> Gas |

Who, besides assigned personnel, will require access to site?

- Public (community room) _____
- Maintenance personnel _____
- Other companies _____

DEPARTMENTAL OPERATIONAL ISSUES

Operations

Describe your current operations:

Typical service calls and type 911 PSAP

Service area: Town Wide

Do you have a community policing program?

School resource officers, D.A.R.E.? _____

Does the department provide community training? _____

Do you use bike patrols? Yes

If yes, how many? _____

Do you use K-9 units? Yes

If yes, how many? 1

Is community access for filing complaints and picking up records important? _____

What is the frequency of community visitors to station? _____

Describe your investigations division:

Do detectives work cases separately or in teams? _____

Other information that we should know?

Staffing

What are your current staffing levels?

Sworn officers _____

Civilian _____

What are your future staffing levels?

Current calls per officer _____

Current population _____

Anticipated population – 20 years _____

Administrative staff?

Current _____

Future _____

Other staff that will use the facility (fire, clinic, etc.)

SECURE AREA

Sallyport

Is a sallyport required? _____

Do you anticipate requiring more than one vehicle access at a time? _____

If so, how many? _____

Booking/Processing

Do you anticipate booking/processing more than one prisoner at a time? _____

If so, how many? _____

Do you anticipate a separate processing area for juveniles? _____

Prisoner Holding

Do you plan to provide holding facilities? _____

If yes, are holding cells to be designed as 8-hour, 5 day or other? _____

If no, how will you handle temporary detention? i.e. cuffing rail, etc. _____

Do you anticipate more than 2 holding cells? _____

If so, how many? _____

Do you anticipate more than one cell for detox? _____

Do you anticipate a separate juvenile holding area? _____

Evidence Processing/Storage

Is the evidence processing done in the same facility? _____

Is a vehicle evidence processing garage required? _____

Do you require a separate area for contaminated items? _____

Do you anticipate requiring an evidence drying area? _____

Do you require a pass-thru evidence refrigerator? _____

What type of storage lockers/shelves is desired for evidence storage? _____

What type of storage lockers/shelves/room is desired for property storage? _____

How do you handle large found property items such as bikes?

PUBLIC AREAS

Interview/Complaint

How many and what type of interview rooms do you require:

Soft interview rooms (with comfortable finishes and furniture)? _____

Hard interview rooms? _____

Complaint room? _____

Polygraph room? _____

Juvenile interview? _____

Do you anticipate interview rooms near:

Lobby _____

Holding Area _____

Detectives _____

All of the above _____

Records

How are records stored, retrieved and provided to the public? _____

How many file cabinets do you require for records? _____

How many years are records kept readily available? _____

Do you need any other type of storage? _____

How many workstations are required at Dispatch? _____

What other equipment needs to be incorporated in the Dispatch Area?

LEEDS computer _____

Security monitors _____

Cable TV _____

Traffic link to Artemis _____

Other _____

ADMINISTRATION

Emergency Operations Center (EOC)

Will an EOC be provided? _____

If so, can the EOC be combined with another space (i.e. training room or conference room)?

Training Room

Is a training room required in this station? _____

What training will occur at this station?

Is there a full-time training officer assigned to this station? _____

Does the training officer require support staff?

Receptionist _____

Assistant _____

Other _____

Where will training reference materials be kept?

Training officer's office _____

Training room _____

Other _____

Will the training room be used for public meetings or seminars? _____

Is a separate public entrance required for the training room? _____

Maximum number of people to be seated theater style (chairs only) _____

Maximum number of people to be seated classroom style (tables & chairs) _____

What material needs to be stored adjacent to the training room?

Training material _____

Tables & chairs _____

Audio/visual equipment _____

Training props _____

What equipment is required for the training room?

Projection screen _____

Marker board _____

Cable TV _____

Other _____

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Indicate whether the following administrative functions require dedicated or shared space within other spaces.

	Dedicated	Located in which other office or space
File storage	_____	_____
Copy / Fax / Supplies	_____	_____
Work Area	_____	_____
General Storage	_____	_____
Library	_____	_____

Is a conference room required (separate from a training room)? _____

How many people shall conference room hold? _____

Will the public have access to the conference room? _____

Is access required after 5:00 pm? _____

PRIVATE AREA

Patrol Room

Do you need individual work areas in the Patrol Room? _____

If yes, How many? _____

Do you need a separate Briefing Room (other than the training room) at the Patrol Area? _____

If yes, how many people should it accommodate? _____

How do officers transfer gear (briefcases, duffels, etc.)? _____

Size? _____

Report Room

How many people should the Report Room accommodate? _____

Do you require storage in the Report Room? What type? _____

Armory and Supplies

Describe the type and quantity of armory storage anticipated

Will weapons maintenance be performed in the armory? _____

Exercise Room

How many people are anticipated to workout at the same time? _____

What equipment will be provided? _____

(Provide list of equipment and dimensions to the Architect)

Locker Room

Is a locker room required? _____

What size lockers are required? _____

Are separate men's and women's locker areas required? _____

If yes, approximate quantity of each _____

Break Room

Is a lunchroom / break room to be provided? _____

How many people need to be accommodated? _____

DISPATCH

Operations

Describe your current operations: 24/7 operations, currently primary dispatch is for police, also dispatch ACO.

Field all incoming phone/911 lines, Radio Traffic, EMD, window service

Typical call volume and types of calls, 9-1-1, non-emergency, business: Not available

Service area (city, county, region) and population: 22000

Population projections (if available) 5, 10 & 20 years out: ?

Is this facility the primary Public Safety Access Point (PSAP)? Secondary PSAP? Primary, back up for Tyngsboro and Chel

Is this facility the Emergency Operations Center (EOC)? The Training Room serves this function

Will this or does this center dispatch units from:

Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Police	if yes, what department(s):
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fire	if yes, what department(s):
<input type="checkbox"/>	<input checked="" type="checkbox"/>	EMS	if yes, what department(s):
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Airport Rescue	if yes, what airport(s):
<input type="checkbox"/>	<input checked="" type="checkbox"/>	County sheriff	if yes, what department(s):
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other:	

If not a PSAP, do you have a county or regional link to a Primary PSAP?

What jurisdiction?

Is there a possibility of providing services to other jurisdictions in the future? I would like to have this taken into consideration

Is there a possibility of this facility serving as a 3-1-1 center in the future? ?

Does the current operations have a SOP manual? PD SOP covers Communications

Systems:

Ideally

Will this building follow FEMA standards?

Does or will your system include the following services:

- 800MHz: Not at this time, no immediate future plans
 - o Are you upgrading to 800MHz?
 - o If yes, what is current MHz and has the RF been established?
- Wireline Enhanced 9-1-1: Yes
- Wireless 9-1-1, phase 0, phase 1 or phase 2: Yes BOTH
- Computer Aided Dispatch (CAD): Yes TriTech/IMC
- Mobile/Portable Data Terminals (M/PDT): na
- Instant Foreign Language Interpretation Services: provided by State 911 Department
- Community Telephone Notification System (CTNS): Yes Code Red
- NCIC and/ or local Crime Information Center: Yes...
- Emergency Operations/Situations Room or Center:

- Radio system infrastructure:
- VHF, UHF: Primary UHF, but we monitor and transmit over both to area towns
- GIS based mapping systems integrated with CAD, 9-1-1, AVL etc.: Not currently, but ideally

- AVL (Automatic Vehicle Location) System: Yes Transcor/Trackstar
- TRU (Telephone Reporting Unit) for filing crime reports: no

What is the data storage medium and anticipated volume of data storage, and length of time data is to be stored?
question for IT Department

Staffing

What are your current staffing levels? (Full-time and part-time)

Call-takers:	<u>7ft/2pt</u>
Dispatchers:	<u>same</u>
Teletype Operators:	<u>same</u>
Systems Specialist:	<u>na</u>
Operational Supervisors:	
Supervising Dispatcher	<u>****</u>
Shift Supervisor	<u>****</u>
Other:	

What is your future anticipated staffing levels? (Full-time and part-time)

Call-takers:	<u>11ft/2-3pt</u>
Dispatchers:	<u>same</u>
Teletype Operators:	<u>same</u>
Systems Specialist:	<u>na</u>
Operational Supervisors:	
Supervising Dispatcher	<u>****</u>
Shift Supervisor	<u>****</u>
Other	

What is your administrative staff structure and size?

Technical Systems Manager?

Training Manager?

Center Manager?

Others?

TRAINING

What organizations does your department or staff belong to?

- Association of Public-safety Communications Officials (APCO)
- National Emergency Number Association (NENA)
- National Association of State 911 Administrators (NASMA)
- Others: _____

What is the current staff-training requirement?

Where are staff currently trained?

What types of training systems are generally utilized?

- Remote classroom
- On-site classroom
- Internet based
- Tele-conference
- Independent study
- Other

Are staff trained in:

- Call taking?
- Emergency Medical Dispatch (EMD)?

- Law Enforcement Dispatch?
- Fire Rescue Dispatch?
- Pre-arrival Instruction (PAI)?
- Other specialties?

Is there a staff position devoted to training?

If yes, does this staff position require support staff?

Training Room

If a training room is to be provided:

Where will training reference materials be kept?

Training Manager's office

Training Room

Other

Will the training room be used for public meetings or seminars?

Is a separate public entrance required for the training room?

Is a food service area needed?

Maximum number of people to be seated theater style (chairs only)

Maximum number of people to be seated classroom style (tables & chairs)

Minimum number of people to be seated before training consoles?

What material needs to be stored adjacent to the training room?

Training material

Tables & chairs

Audio/visual equipment

Training props

What equipment is required for the training room?

Projection screen:

Marker board :

Cable TV:

Ceiling or wall mounted TV/VCR/DVD/CD:

Other

Staff Services and Support

What are the anticipated staff support areas?

- Break room(s), number _____
- Kitchen
- Quiet Room
- Trainer/Trainee report
- Smoking room(s), number _____
- Exercise facilities
- Locker rooms
- Resource library
- Internet access area
- Other _____

What type of furniture systems do you currently use?

- Consoles
- Chairs
- Modular Office systems/Consoles
- Specialties/storage units
- Other _____

What type of furniture systems do you anticipate or prefer for your new facility?

- Consoles
- Chairs
- Modular Office systems/Consoles
- Specialties/storage units
- Other _____

Locker Room: (if planned)

What size lockers are required? Full-height, half-height? 12" , 15" , 18" or 24" wide?

Are separate men's and women's locker areas required?

If yes, approximate quantity of each:

Are shower areas to be provided?

If yes, approximate quantity:

Mechanical Electrical and Systems:

Does the building require redundant HVAC systems?

Including dual fuel for combustion equipment?

Will the facility require complete generator backup?

If so, how many run hours of backup?

Type of fuel system anticipated:

Does the building require dual primary electrical feeds?

Does the facility need domestic water storage tank or a well as a backup to city water?

Some Dispatch/EOC buildings don't have windows. If this is the case for this facility, will there be a special requirement for lighting?

Will the building have a dispatch tower?

Will the tower and related emergency power system be on-site?

TECHNOLOGY PLANNING QUESTIONNAIRE

The following questionnaire is being provided as a tool to familiarize you with questions, issues, and data that will be discussed in the beginning stages of your project. To be responsible with our client's time, we have developed this form to allow you to prepare and discuss the following materials prior to our meeting.

If more than one person will be providing input into the completion of this form, please compile all the data into one questionnaire to avoid providing conflicting information.

Please contact us if you have any questions filling out this form.

PROJECT MANAGEMENT

Who will manage the project for the Department?

Daily contact with the design team and contractor

Name Mike Wells Title/role Director of Technology

Other members of department building committee and their roles involved in the project:

Name _____ Title/role _____

Name _____ Title/role _____

Name _____ Title/role _____

Parking

Estimated number of spaces required (staff + visitors): 5 staff and 1 visitor _____

Staffing

What are your current staffing levels? 5 in current building, 1 off site

What are your anticipated future staffing levels? Same

What is the number of private offices needed? 1

What is the number of Individual Workstations needed? 4

What is the number of Shared Workstations needed? 0

Indicate whether the following administrative functions require dedicated or shared space within other spaces.

	Dedicated	Shared	Size Requirements
File storage	_____	X _____	<u>4 large filing cabinets</u>
Copy / Fax / Supplies	_____	X _____	_____
Work Area	X _____	_____	<u>250ft² combined</u>
General Storage	X _____	_____	<u>shelving & large bench are</u>

EQUIPMENT:

Assumption – The new facility is geographically separate from the existing PD infrastructure.

Servers:

Number of Existing Racks: 2 Provide a description of the existing system and any anticipated changes including projected growth:

Existing racks house servers, storage and UPS equipment. We have no plans to grow this.

Telecom:

Number of Existing Racks: 2 Provide a description of the existing system and any anticipated changes including projected growth:

Consists of local patching, routers, firewalls, switches, fiber patching, ISP devices and UPS equipment.

Head End Room:

Number of Existing Racks: _____ Provide a description of the existing system and any anticipated changes including projected growth:

None in existing building. Requirements for a new building would depend on its design.

UPS:

Number of Existing Racks: _____ Provide a description of the existing system and any anticipated changes including projected growth:

UPS equipment is included in the existing rack space. This is for power conditioning and bridging until the generator is running, not sustained operation.

INFRASTRUCTURE:

Provide a description of your current data and systems backup strategy, including your records retention policy (digital and paper). Describe any anticipated changes:

We have two processing centers – the current Tech Center and the PD. Production systems are spread across the two sites normally but either location could run all core systems if needed. Backups are held at the Highway building on a dedicated storage device.

Provide a system-wide description of all existing hardware platforms and network connections indicating all internal and external access points. Describe any anticipated changes:

The environment is too complex to detail here. The key information is that all buildings are connected via a ‘star’ fiber infrastructure, and that the center of that star is the current Tech Center. Internet connections are dispersed, but the Tech Center has one of the major ones.

Provide a copy of your IT Security Policy. If no formal written policy exists, provide a detailed description of the physical security features in place. Describe any anticipated changes:

We need controlled access to our offices and separate controled access to the workshop/storage area and the server room. The training area should not be open to the public, but should be available to any member of staff.

Provide a copy of your Information Technology Disaster Recovery Plans, including information on any contracts for alternate sites. Describe any anticipated changes:

Our DR plans are documented and revolve around using existing locations to substitute for ‘lost’ facilities. We have no contracts for alternate sites.

Provide a list of any data processing services provided to any other entities, indicating the type of service provided. Describe any anticipated changes:

We also host and operate the majority of the School Department’s servers, including their VDI systems.

ADDITIONAL DISPATCH QUESTIONS:

Will Dispatch include Fire and Police interfaces at each position? _____

What will each position include for equipment?

E911: _____

CJIS: _____

CAD/EMC: _____

Security Station: _____

Radio: _____

General Work Station: _____

Will existing work station furniture be reused? _____

What is the acceptable UPS Backup down time? 1 Hr: _____ 2 Hr: _____ 3 Hr: _____

Who is the radio vendor? _____

Will I.P. based radios be used for control? _____

Where are non-switched telephone outlets to be provided? _____

Where are desired CATV outlets to be provided? _____

OTHER ISSUES AND CONCERNS:

TRAINING AREA – We would very much like to have access to a training area for up to 10 people where we can have **permanent** workstations set up. The difficulty of setting up and taking down the equipment is a major obstacle to us providing training. IT training is key to staff productivity in most administrative areas.

SPACE NEEDS ANALYSIS

Westford Fire Department Center Station Study

November 19, 2014

PROGRAMMED SPACE	PRIORITY LEVEL			SUGGESTED NEEDS	REMARKS
	HIGH	MED.	LOW		
Shared Spaces					
PUBLIC AREAS					
Entry Vestibule	80			80	
Lobby / Waiting Room	250			250	Could be smaller if building not shared with dispatch and technology
Public Toilet (2 sets of 2 rooms)	750			750	375 sf each; 1 set for administration, 1 for public
Community/ Training Room	1,390			1,390	Back-up EOC
Training Room Storage/Break-out	320			320	
Hospitality			126		
Triage Room		120			
SUBTOTAL	2,790	120	126	2,790	

SHARED SPACES

Dispatch	1,288			1,288	4 stations: 2 PD, 1 FD, 1 SPARE
Mail Delivery		64			
SUBTOTAL	1,288	0	0	1,288	

Net Total Shared Spaces 4,078 0 0 4,078

Technology

Office	165			165	
Shared Office	288			288	3 workstations
Tech Work Area	224			224	
Training Room	352			352	seats 10
File Storage	72			72	
Work Room	96			96	
Server Room	240			244	
SUBTOTAL	1,437	0	0	1,441	

Net Total Technology 1,437 1,441

SPACE NEEDS ANALYSIS

Westford Fire Department Center Station Study

November 19, 2014

PROGRAMMED SPACE	PRIORITY LEVEL			SUGGESTED NEEDS	REMARKS
	HIGH	MED.	LOW		
Fire Department					
ADMINISTRATION					
Chief's Office	192			192	
Exec T/SH + Conference	195			195	shared Chief & Deputy Chief
Deputy Chief	192			192	
ALS Office	180			180	
Office Manager	165			165	
Fire Investigator/ Training Office (2 rooms)	360			360	2 offices at 180 each
Fire Prevention	242			242	inc. counter space
Report Room	260			260	
Conference Room	333			333	seating for 16
General Storage	200			200	40% Plans/ 60% Archive
Union Office	100			100	
SUBTOTAL	2,419	0	0	2,419	
LIVING SPACES					
Dorm Rooms	810			810	6 rooms, 135 sf each
Fitness	500	600		500	
Restrooms/ Showers	300			300	2 men, 1 women
Restroom	64			64	
Officers Dorm Rooms	462			462	3 rooms (cold sheets), 1 shared shower
Day Room	450			450	10 occupants
Kitchen/Dining	651			651	dining for 9, Access to exterior gas grill
Domestic Laundry	88			88	
SUBTOTAL	3,325	600	0	3,325	
OPERATIONS					
Apparatus Bays	5,680		1360	7,040	(4) 80'D Bays H Priority, (1) Bay M Priority
Mezzanine	540			540	
SUBTOTAL	6,220	0	1,360	7,580	
OPERATIONS SUPPORT					
Hose Storage	78			78	Movable Hose Rack 4'Wx18'L
Turnout Gear Storage	396			396	(40) Lockers
EMS Storage	360			360	
Decontamination	208			208	
Dirty Restroom	68			68	
SCBA Bottle Storage Room	238			238	
General Storage	234			234	
Quartermaster Storage	273			273	
Compressor Room	48			48	
Radio Charging Station	33			33	
Storage	25			25	next to radio charging
Janitor's Closet (3) total	90			90	Admin, Living, and Operations
Fuel Storage	60			60	
SUBTOTAL	2,111	0	0	2,111	
Net Total Fire Department	14,075	600	1,360	15,435	

SPACE NEEDS ANALYSIS

Westford Fire Department Center Station Study

November 19, 2014

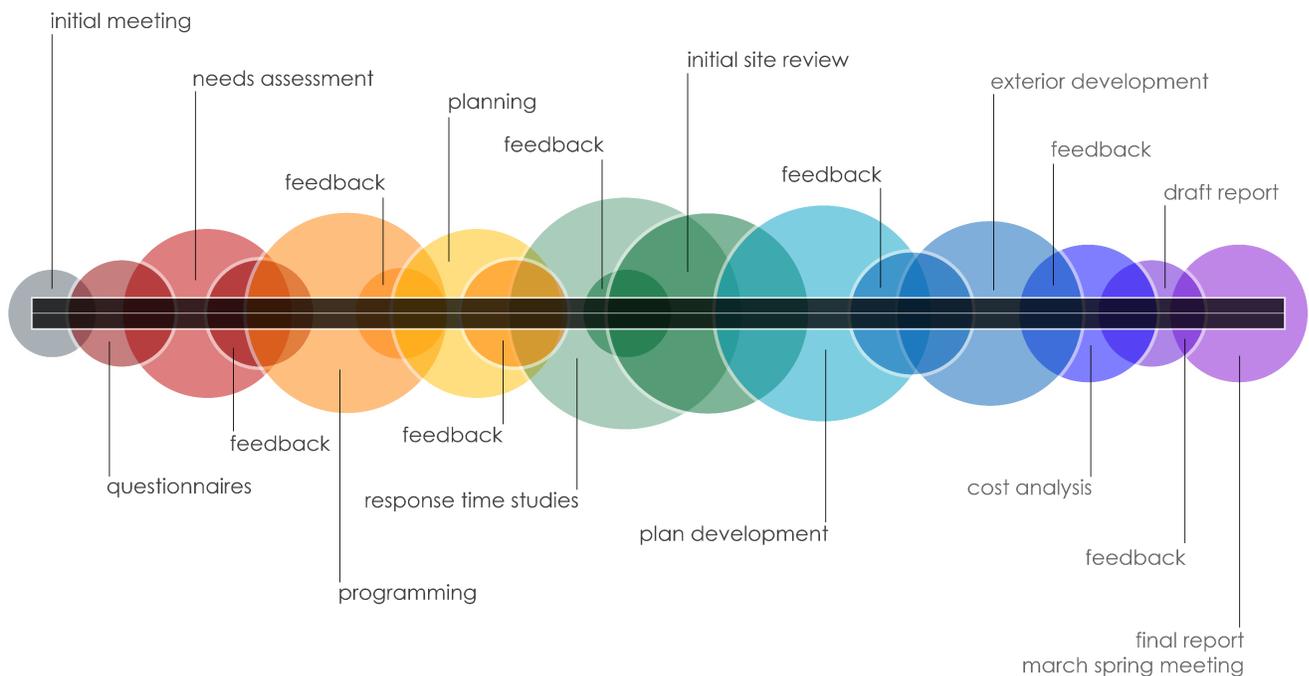
PROGRAMMED SPACE	PRIORITY LEVEL			SUGGESTED NEEDS	REMARKS
	HIGH	MED.	LOW		
Building Systems + Vertical Circulation					
Elevator + machine room	160			160	2 floors + equipment room
Stair	300			300	2 floors
Stair	300			300	2 floors
Mechanical Room	500			500	
Electrical Room	250			250	
Generator					Outdoor; Natural Gas
SUBTOTAL	1,510	0	0	1,510	
SUMMARY					
Shared Spaces	4,078	0	0	4,078	
Infrastructure @ 15%	612	0	0	612	
Building Circulation @ 12.5%	510	0	0	510	
SUBTOTAL SF	5,199	0	0	5,199	
Technology	1,437	0	0	1,441	
Infrastructure @ 15%	216	0	0	216	
Building Circulation @ 20%	287	0	0	288	
SUBTOTAL SF	1,940	0	0	1,945	
Fire Department	14,075	600	1,360	15,435	
Infrastructure @ 12.5%	1,759	75	170	1,929	
Building Circulation @ 10%	1,408	60	136	1,544	
SUBTOTAL SF	17,242	735	1,666	18,908	
Building Systems + Vertical Circulation	1,510	0	0	1,510	
Infrastructure @ 12.5%	189	0	0	189	
SUBTOTAL SF	1,699	0	0	1,699	
GRAND TOTAL SF	26,080	0	1,666	27,751	

Preliminary Design Overview

PRELIMINARY DESIGN OVERVIEW

Design Process

Based on the work done in the Programming Phase, the required spaces were compiled into loose adjacency diagrams to help identify building operations & flow, arrangement of public vs. private spaces, and the organization of occupied spaces vs. infrastructure spaces. After the adjacencies and operational issues were reviewed and understood, conceptual plans were developed with input from the Fire and Police Departments, as well as from the Building Committee. These plans identify the required programmatic rooms, infrastructure spaces, and circulation patterns, including elevator and stairs.



As the design evolved, the building’s massing was developed by extruding the schematic plans three-dimensionally to account for required vertical clearances, the optimal height of each space, and the depth of the supporting structural systems. Concurrently, a preliminary site layout was developed that shows major vehicular site ingress/egress, and parking locations.

Once Schematic Design has been approved, formal Geotechnical and Civil surveys will be conducted, along with additional engineering and architectural analyses, which will facilitate the development of the project from concept into a detailed set of plans and specifications that will be developed for final pricing and construction. Along the way, the design process will include a number of checks and balances that include ongoing collaboration and feedback with departmental and Town officials, as well as multiple budget reviews.

Existing Station Overview

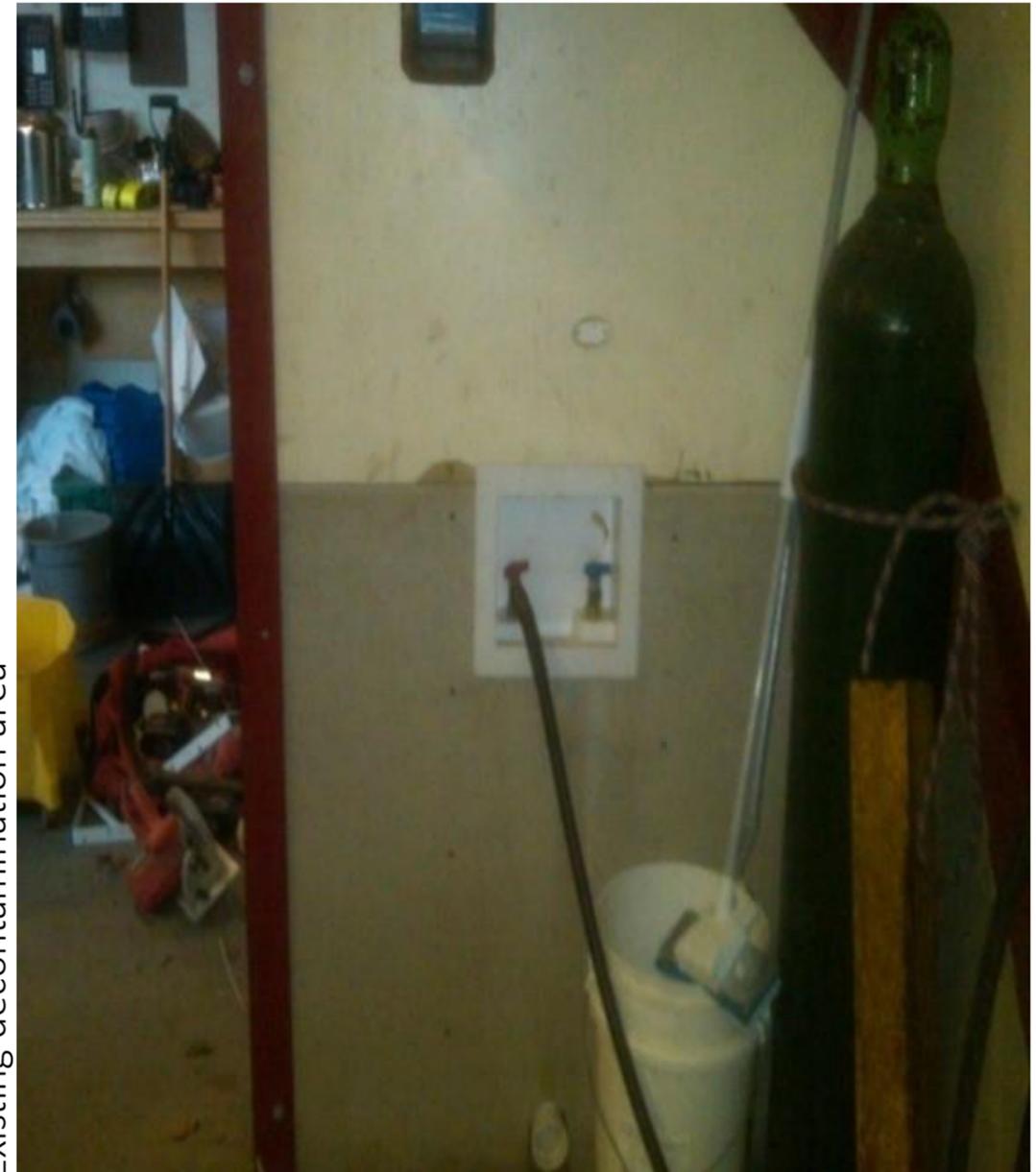
- Constructed in **1974** when Fire Department was a volunteer department, facility is inadequate to meet current or future needs of Department of Town.
- Station has three bays and stores two engines, two ambulances, and one ladder truck.
- Currently all EMS/ALS calls are dispatched from this location.
- Building needs significant upgrades to address building codes, accessibility issues, energy issues, equipment and hazardous materials storage issues.
- DRA Report dated January 29, 2014 listed many unsafe conditions of the building including unsafe egress from the second floor.
- Existing structure is approximately 30 feet tall.
- Existing usable area is approximately 6,000 sf.



Existing Station Overview

- x No accommodations for full-time staff
- x No space for administrative staff
- x Building is not compliant with Americans with Disabilities Act
- x Inadequate bathroom and shower facilities for men and women
- x Inadequate sleeping quarters
- x Inadequate records storage
- x No locker room facilities
- x No area for decontamination
- x No area for bio-hazard storage
- x No space for medicine, equipment, etc. for a Paramedic Level Department with 12 paramedics
- x Unable to accommodate public meetings
- x No fire sprinkler system

Existing decontamination area



Site Selection Overview

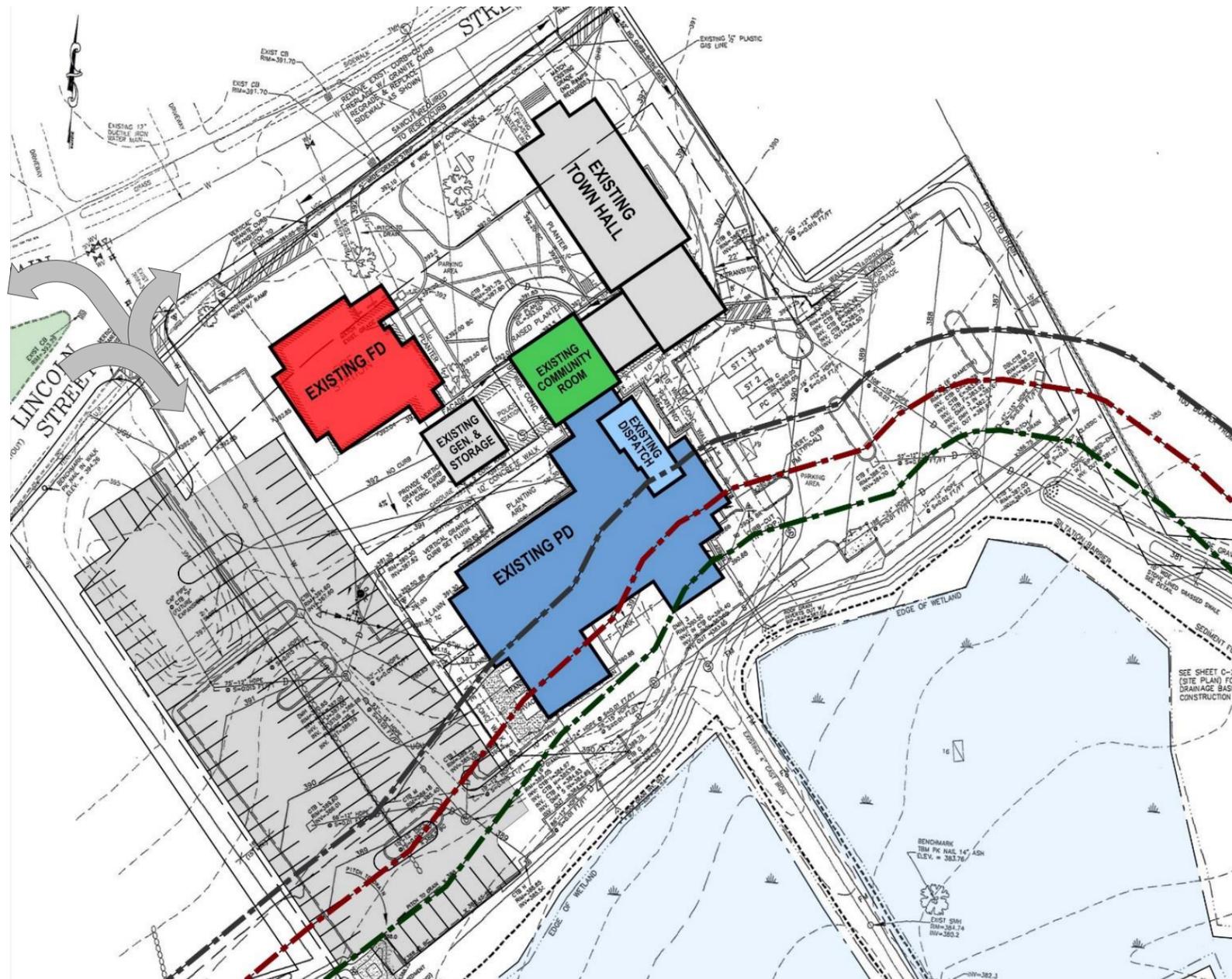


Existing Site - Overview



Existing Site

Existing Conditions & Space Needs Summary



FIRE DEPARTMENT SPACE NEEDS ANALYSIS

PROGRAMMED SPACE	Planned Area
------------------	--------------

Shared Spaces	
PUBLIC AREAS	
Lobby, Restrooms, Community/Training Room, etc.	2,790
Dispatch, Mail Delivery, etc.	1,288
Net Total Shared Spaces	4,078

Technology	
Offices, Work Area, Training Room, Servers, Storage, etc.	1,437

Fire Department	
Administration	
Offices, Conference Room, Storage, etc.	2,419
Living Spaces	
Dorms, Fitness, Restrooms, Day Room, Kitchen/Dining, Laundry, etc.	3,325
Operations	
Apparatus Bays, Mezzanine, Etc.	6,220
Operations Support	
Decontamination, Hoses, Turnout Gear, SCBA, Storage, etc.	2,111
Net Total Fire Department	14,075

FIRE DEPARTMENT SPACE NEEDS ANALYSIS

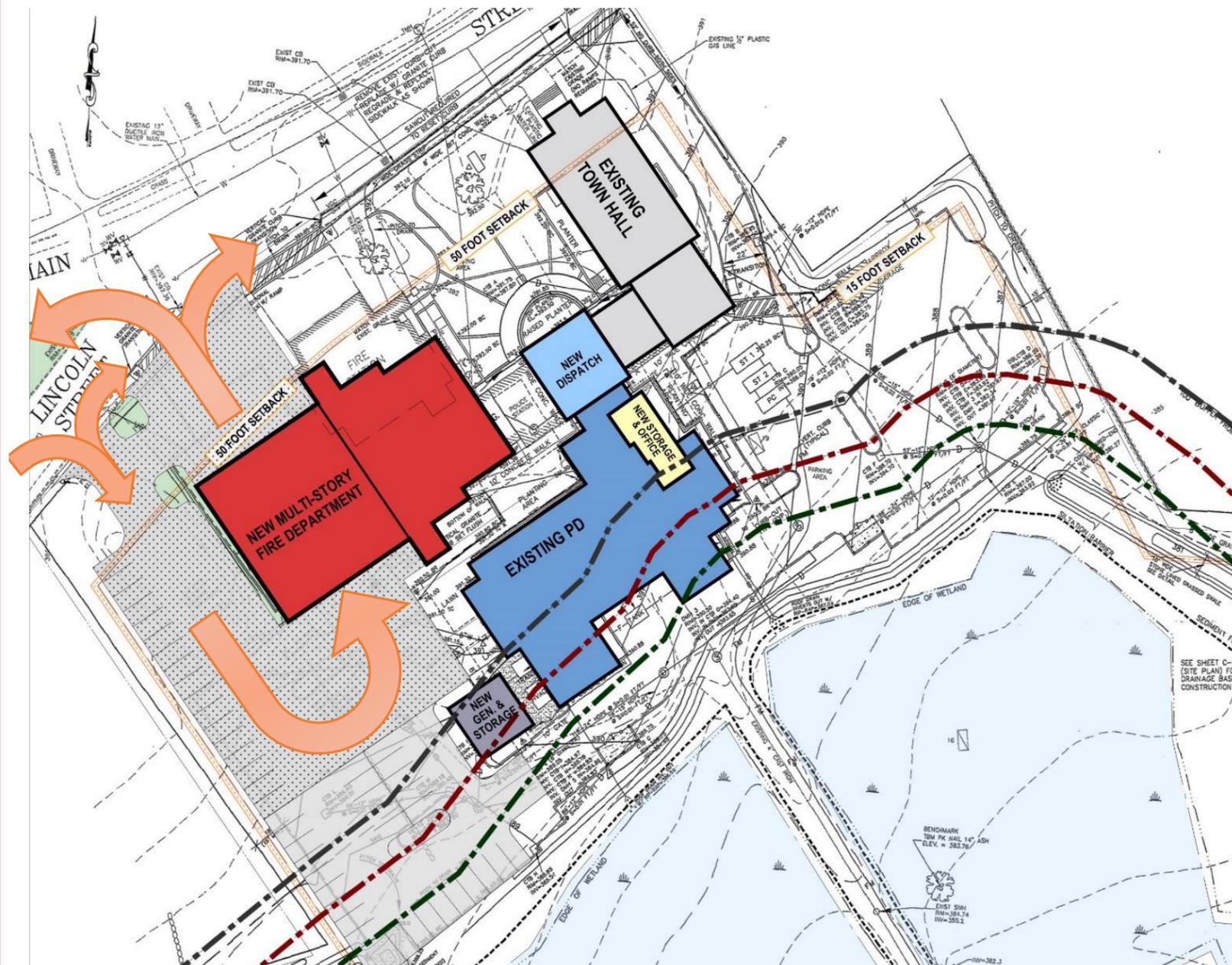
PROGRAMMED SPACE	Planned Area
------------------	--------------

Building Systems + Vertical Circulation	
Stairs, Elevator, Mechanical, Electrical, etc.	1,510

Summary	
Shared Spaces (Infrastructure @ 15%, Building Circulation @ 12.5%)	5,199
Technology (Infrastructure @ 15%, Building Circulation @ 20%)	1,940
Fire Department (Infrastructure @ 12.5%, Building Circulation @ 10%)	17,242
Building Systems + Vertical Circulation (Infrastructure @ 12.5%)	1,699

GRAND TOTAL SF	26,080
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Existing Site - Conceptual Fire Station



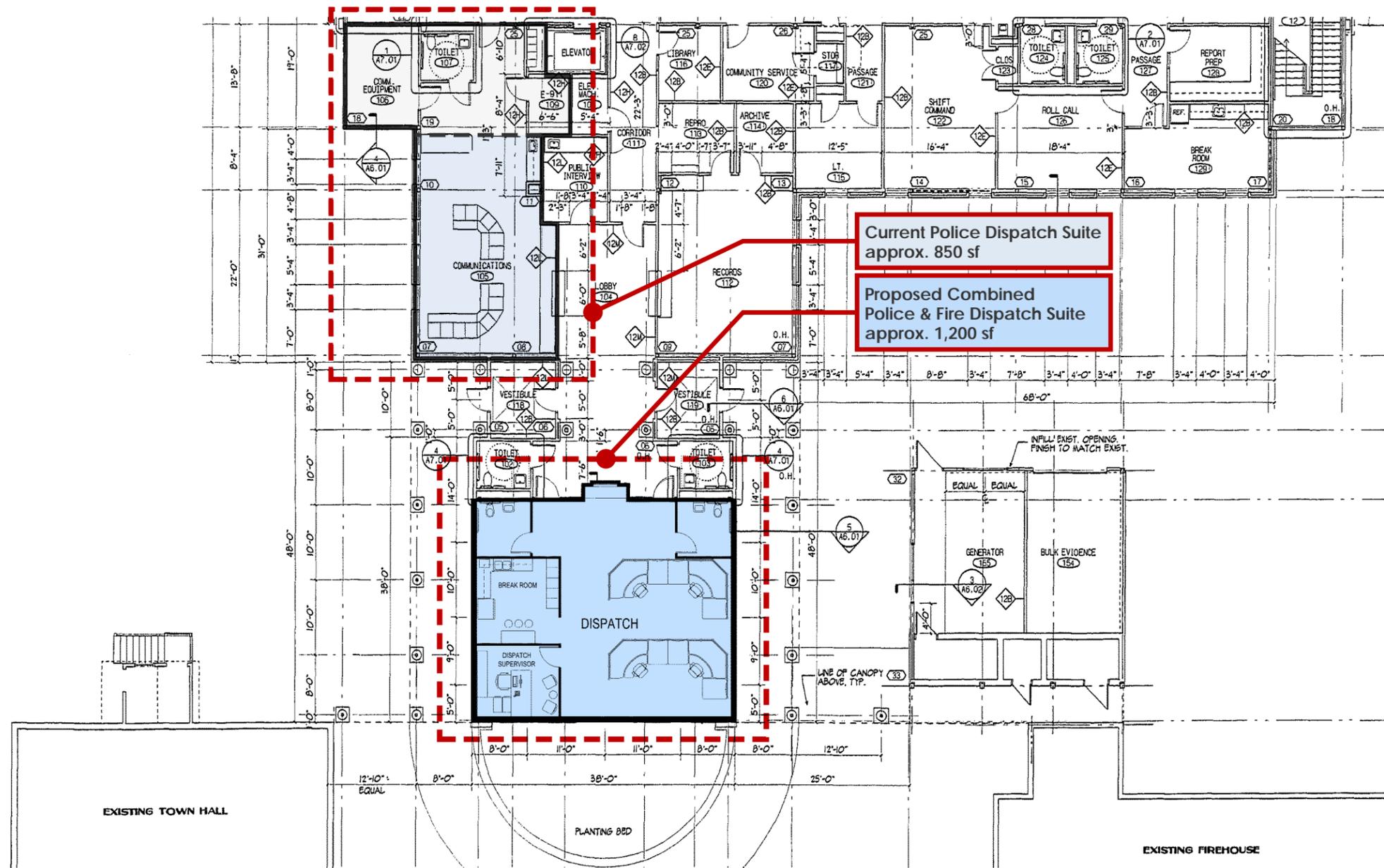
- x No room for future expansion
- x Inadequate turning radii both exiting the apparatus bays & returning to the rear of the station.
- x Difficulty returning to station from eastbound approach on Main Street.
- x Significant loss of public & staff parking.
- x Three-point turn required to return to rear of station. Not all bays accessible to return.
- x Significant additional costs & logistical impacts to relocate generator & related infrastructure.
- x Will significantly impact Police & Fire operations during construction.
- x 3-Story structure likely required to incorporate new Community Room and Technology Department.

Existing Site - Conceptual Accessory Building



- ✓ No loss of parking spots.
- ✓ No additional costs to relocate generator & related infrastructure.
- ✓ Meets setback requirements.
- ✓ No significant impacts to Police & Fire operations during construction.
- ✓ New space for Town Technology Department.
- ✓ New space for larger Town Community Room.

Existing Site - New Combined Dispatch



- ✓ Room for combined Police & Fire Dispatch.
- ✓ Meets ADA guidelines.
- ✓ Secure suite with adequate staff restroom facilities.
- ✓ Room for additional office & storage space.

Boston Road Site Overview



- ✓ Optimal location based on Response Time Analysis.
- ✓ Town-owned property.
- ✓ Improved appearance to unmaintained lot.
- ✓ Open clearing on parcel at intersection of Boston Road and Blake's Hill Road.
- ✓ Topography slopes up away from Boston Road towards Blake's Hill Road.
- ✓ Parcel 22-3-5 (5.02 acres) will maintain natural vegetated buffer to Blake's Hill neighborhood.

Boston Road Site Overview

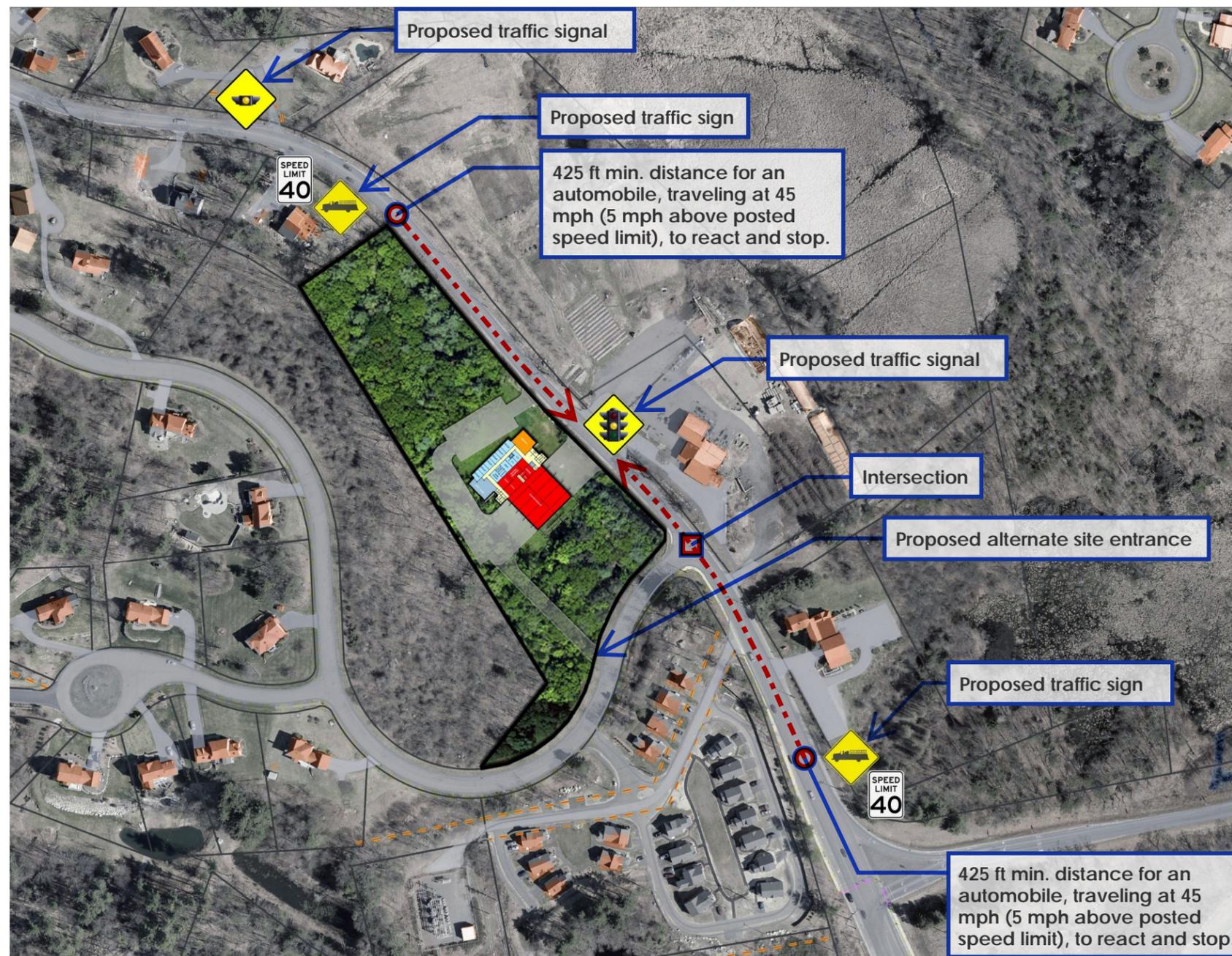


Proposed Site



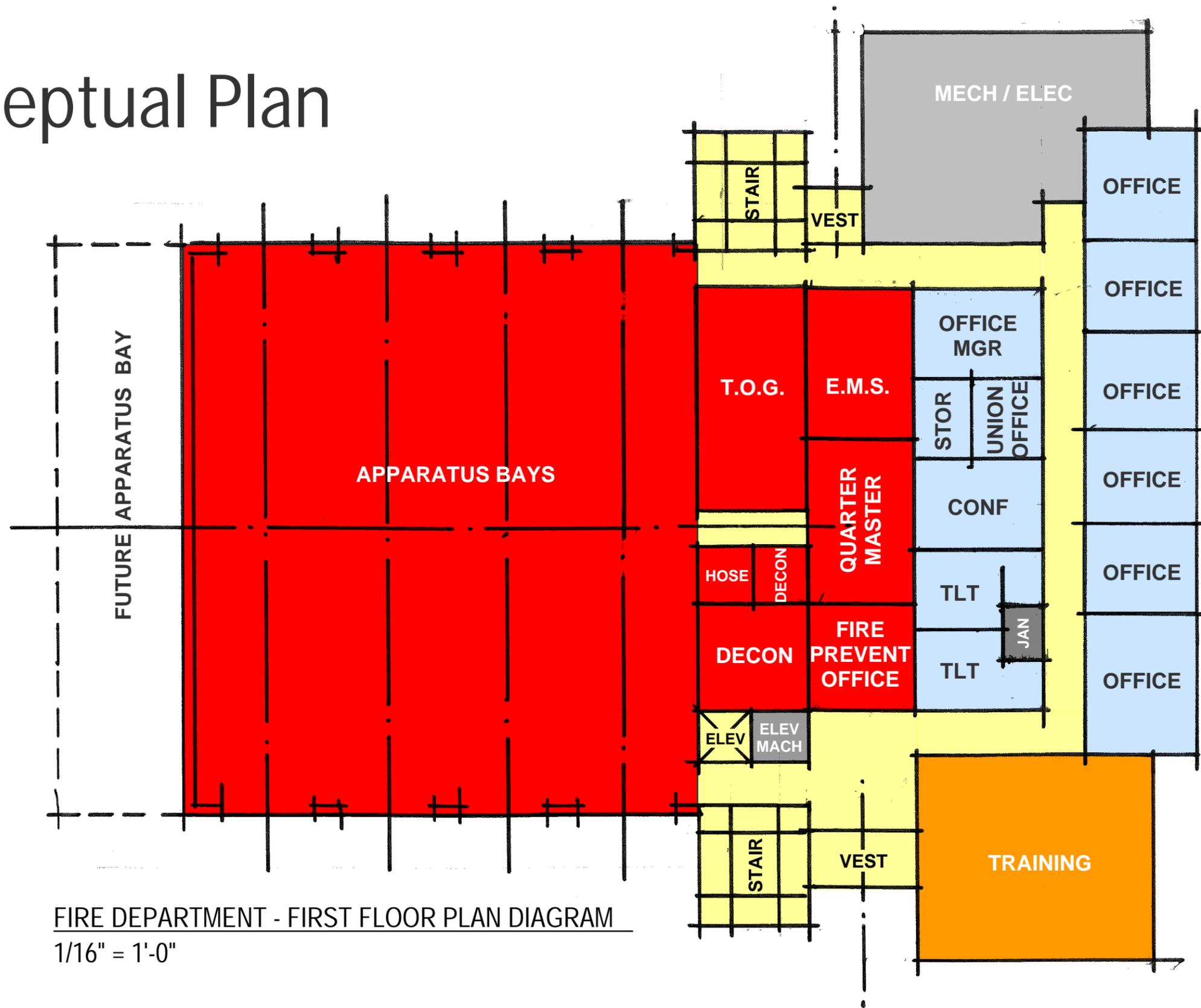
Site Overview

Conceptual Site Plan



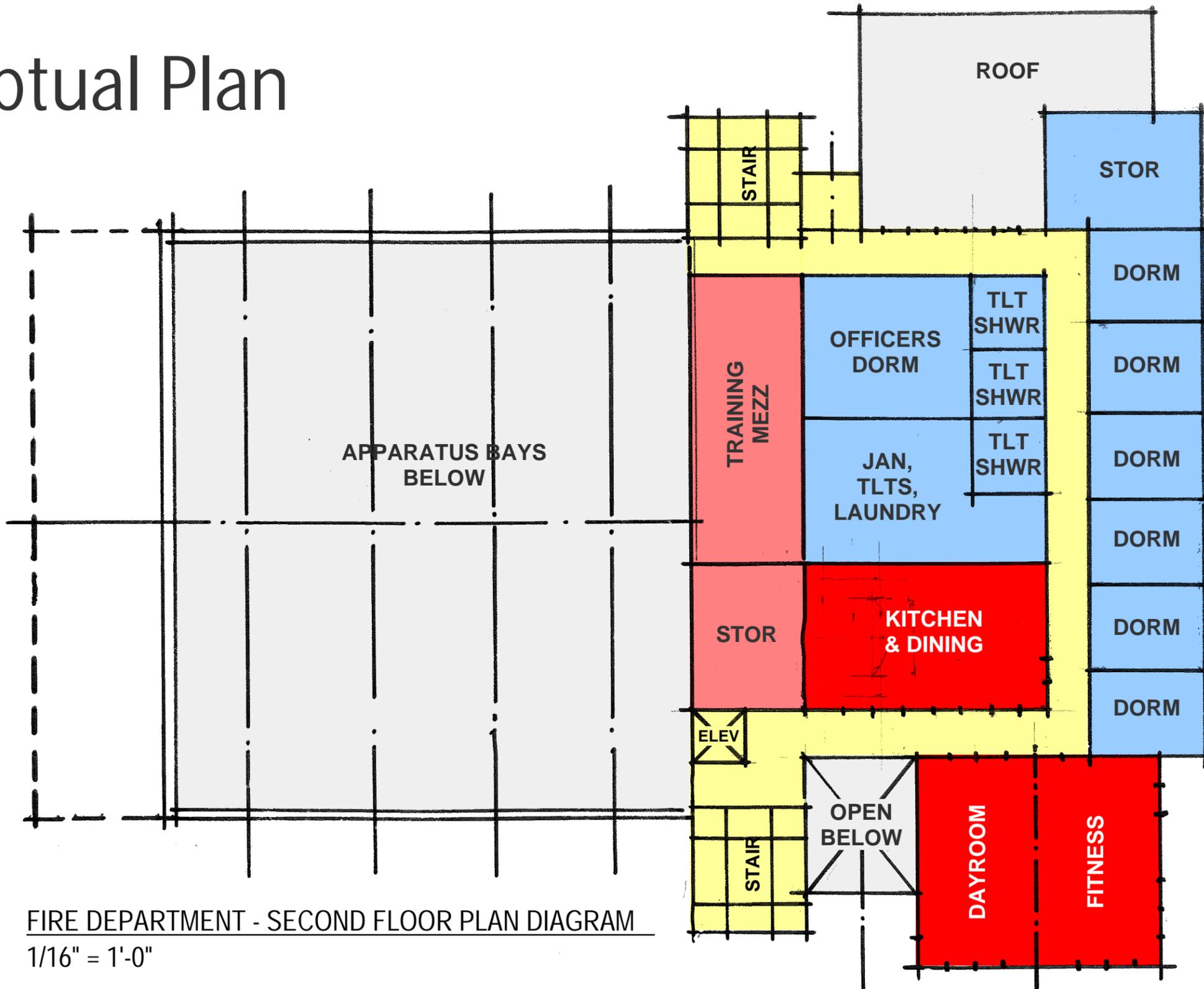
- ✓ Room for Future Expansion.
- ✓ Optimal turning radii both exiting the apparatus bays & returning to the rear of the station.
- ✓ Room for public & staff parking.
- ✓ Meets setback requirements.
- ✓ Large buffer-zone adjacent to Blakes Hill Road.
- ✓ No significant impacts to Police & Fire operations during construction.

Conceptual Plan



FIRE DEPARTMENT - FIRST FLOOR PLAN DIAGRAM
1/16" = 1'-0"

Conceptual Plan



Conceptual Rendering



Existing Facility Assessments

ARCHITECTURAL ASSESSMENT – CENTRAL FIRE STATION

Overview

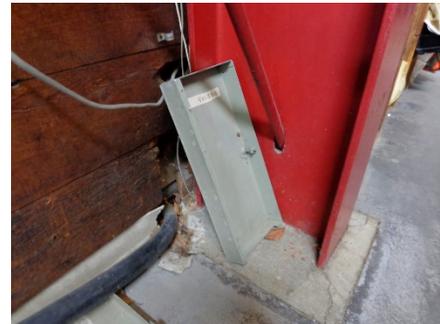
The Westford Central Fire Station was constructed in 1974 for a volunteer department with a total usable floor area of approximately 6,825 square feet divided over two stories. The structure has three minimally sized apparatus bays that house two Engines, two Ambulances, and one Ladder Truck.

The facility needs significant upgrades to address space needs and code deficiencies, (including ADA regulations and seismic requirements), energy issues, electrical & mechanical deficiencies, lack of equipment & hazardous materials storage, and the absence of an elevator and a fire sprinkler system, as well as others that will be described in the following documentation.



Building Interior

From a maintenance standpoint, the interior of the facility has been sustained to the extent feasible but numerous issues are apparent such as cracked floor slabs, degraded floor finishes, lack of insulation, water infiltration/mold issues, and underperforming mechanical and electrical systems that are beyond their useful life expectancy (building system assessments are provided in the following sections).



As for building codes, there are a number of life-safety issues that need to be addressed such as open stairs without guardrails; lack of emergency egress routes; exposed combustible materials such as wood ceilings; unbraced and unrated structural elements; conversion of the attic space to storage; and lack of a sprinkler system. In addition, there are numerous accessibility upgrades required to meet current ADA regulations. Specifically, an elevator needs to be added to access the second floor; several spaces have inadequate headroom; doors have insufficient clearances, hardware, and thresholds; stairs do not meet requirements for nosings and handrails; ramps need to be added to overcome differences in floor heights; kitchen sink & cabinets do not meet requirements; restroom plumbing fixtures and accessories are not compliant and restrooms do not provide adequate clearances.



From the perspective of space-needs, the current facility is significantly undersized to meet the demands placed on a full-time Fire and EMS department of this size, which also provides EMS/ALS dispatch for all calls within the Town. There are currently no accommodations for full-time staff; no space for administrative staff; inadequate bathroom and shower facilities; inadequate sleeping quarters, inadequate fitness facilities (fitness equipment is currently used in the apparatus bays behind the fire trucks and ambulances, which is also a life-safety issue); insufficient records storage; no locker room facilities, no decontamination area, no area for bio-hazard storage, no space for medicine or paramedic equipment, and no space for staff or public meetings (the staff dining room table currently serves as the only staff meeting/training area, as well as the layout table for the fire-safety officer).



Building Exterior

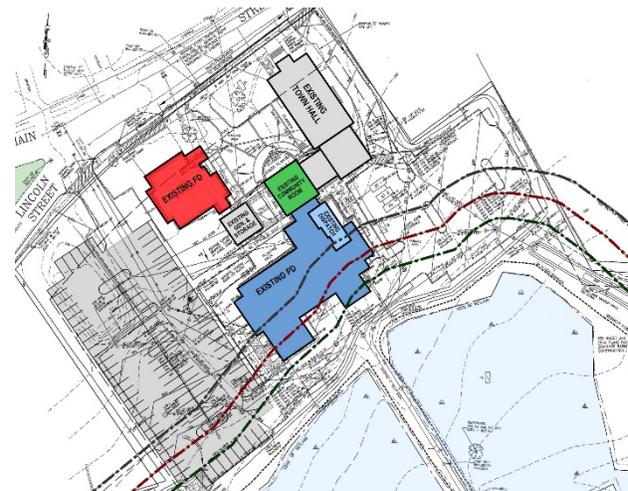
Similar to the interior, the exterior of the facility has been sustained to the extent feasible but numerous issues are apparent due to weathering and initial design issues, the most significant of which is the lack of roof overhangs. As a result, the wood trim has deteriorated, allowing for water infiltration, and needs to be replaced. In addition, window glazing is inadequate and overhead doors are uninsulated, resulting in thermal issues, and the aluminum siding is in disrepair and is beyond its useful life expectancy. An evaluation of the roofing surface was not conducted as part of this study.



Town Center Site

The existing town-center site, comprised of parcel 059.0047.0000 & parcel 059.0046.000, is approximately 29.4 acres at the intersection of Main Street and Lincoln Street, across from the Town Common. The site is dominated by wetlands, leaving less than 3 acres available for development. This remaining area consists of the existing central Fire Department with a footprint of approximately 4,200 sf, a Generator/Storage building with a footprint of approximately 1,300 sf, the Police Department with a footprint of approximately 13,400 sf, and Town Hall with a footprint of approximately 6,000 sf, as well as a public courtyard and approximately 125 parking spaces for staff and visitors.

The footprints of the Fire Station and Town Hall extend across the 50 foot zoning setback from Main Street and a portions of the Police Station are situated within the wetlands buffer zone to the rear of the site. There is minimal room for expansion as the remaining open space, which is currently dominated by parking, is limited due to the zoning setbacks and wetland buffer zones. Any expansion within this area would drastically reduce the area available for parking, which is already insufficient to meet the current needs of the site.



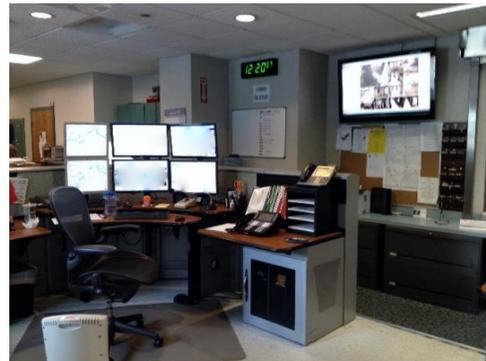
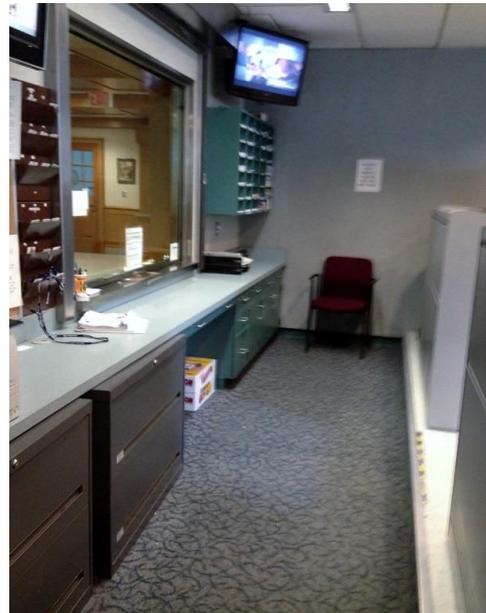
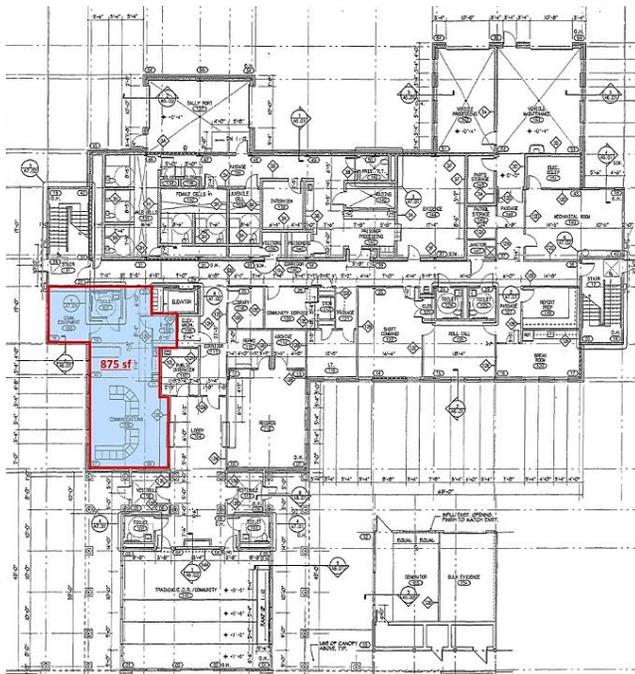
Recommendation:

The existing Central Fire Station has outlived its useful life expectancy based on the growth of the department since its original construction. Due to the extent of renovations needed to resolve maintenance issues, code deficiencies, and the lack of operation space, along with the limited area available for expansion at the Town Center due to site constraints, the recommendation would be to build a new Central Fire Station in a new location with enough space for proper site access and future expansion.

ARCHITECTURAL ASSESSMENT – POLICE DISPATCH

Overview

The Westford Police Department was constructed in 1998 to replace the original structure build in 1973. The existing dispatch suite, which was originally designed as a two-station unit, is approximately 875 sf and now supports three dispatch stations. The suite is landlocked on the northern side of building adjacent to the Lobby Vestibule & Community Room, and across the main Lobby from the Records Department; to the east is a staff corridor and to the north is public and staff parking. The suite includes a small staff break area, a single-user toilet room, and two rooms for communication and E-911 equipment. The department has been well maintained but is overcrowded and does not comply with current ADA regulations.



Recommendation

Based on the size of the existing Dispatch suite, it's location within the building, and the projected future needs of the department, (including a potential consolidation with the Fire Department Dispatch unit), the recommendation would be to build a new Dispatch suite that can provide the necessary space to support additional work stations, equipment, restrooms, storage, and staff support areas. A new suite would also meet ADA regulations and provide an opportunity for increased security.

STRUCTURAL – CENTER FIRE STATION

The purpose of this report is to assess the structure of the existing building, comment on the existing structure and comment on the structural integrity of the building.

Basis of the Report

This report is based on visual observations during our site visit on March 12, 2014. During the visit we did not remove any finishes or take measurements; so, our understanding of the structure is limited. As part of the study, we reviewed the structural framing plans of the existing construction prepared by EcoDesign Inc. and Souze & True Inc., dated April 2, 1973.

Existing Conditions

The fire station is located adjacent to the police station and both of these facilities were constructed in 1973. The fire station is a two story steel structure with miscellaneous wood framing, infill decking, and walls. The first floor is a 5" thick cast in place concrete slab on grade. The loft consists of tongue and groove wood decking spanning between structural steel beams spanning between steel hanger rods which are suspended from the roof structure. At some date in the past, the loft structure was expanded to the exterior wall on the south side. We were unable to view the framing of the wood infill loft expansion. The roof consists of tongue and groove wood decking spanning between structural steel framing between steel columns. The offices at the first floor are wood framed.

The existing structure is in sound condition and performing well for the most part. We observed moderate cracks in the concrete slab on grade, some of which radiate from central floor drains in the parking spots for the heavy vehicles. We also observed minor cracks in the drywall at the dormer located above the loft expansion. These cracks may be due to the flexibility of the structure under wind loading.

The loft expansion is performing adequately. We did not perceive any vibrations of concern due to footfall in the loft structure. We understand that the loft expansion was constructed by the staff at the fire station and may not have been engineered.



RECOMMENDATIONS:

The structure is in good repair and performing well for the most part. We would recommend that the framing of the loft expansion framing be investigated to verify that it is adequately designed and supported from the original fire station structure. Further investigation may be required to view the dormer framing and determine whether any reinforcement of the structure is required. We would recommend that the cracks in the concrete slab on grade be repaired and sealed. To provide future durability, an epoxy wearing surface should be applied to the slab.



STRUCTURAL – POLICE DEPARTMENT

The purpose of this report is to assess the structure of the existing building, comment on the existing structure and comment on the structural integrity of the building.

BASIS OF THE REPORT

This report is based on visual observations during our site visit on March 12, 2014. During the visit we did not remove any finishes or take measurements; so, our understanding of the structure is limited.

EXISTING CONDITIONS

The Police Station was constructed in 1998. The structure is attached to the original Westford Town Hall and adjacent the original fire station. Typical roof construction is 1 1/2" deep galvanized metal deck on sloping structural steel framing supported by steel columns and cast in place concrete foundations. The typical floor construction is a 4 1/2" deep concrete slab on galvanized metal form deck supported by steel beams and girders spanning between steel columns.

We observed cracking in the concrete masonry units (CMU) in the cell block and Sally port. These cracks appear to be due to shrinkage and should be repaired with caulking for aesthetics and to resist water infiltration. The shrinkage cracks are adjacent the control joints. We observed that the original control joints were very hard and likely not performing well. We observed consistent cracking in the shooting range on the 2nd floor above the cell block.

The corridor off of the main lobby, we observed some cracks and local settlement of the slab on grade at the first floor. We observed discontinuities in the slab on grade read through the flooring and the finished flooring is damaged at these locations. We would recommend filling the joints in the concrete floor slab with caulking and patching the floor with a cement patching material to level out the surface.

The cracking in the CMU and slab on grade is not a structural concern. The existing structure is in sound condition and performing well for the most part.

RECOMMENDATIONS:

The vertical cracks in the CMU in the Sally port and gun range should be repaired with caulking for aesthetics and to resist water infiltration through exterior walls.

The joints in the concrete slab on grade in the first floor corridor should be repaired, which would include caulking the joints. We would recommend removing the flooring and patching the concrete slab with a cement patching material to level out the surface.

FIRE PROTECTION ASSESSMENT – EXISTING FIRE DEPARTMENT

The Building does not contain an automatic sprinkler system.

In general, Massachusetts General Law M.G.L. c.148, s.26G requires that any existing building over 7,500 square feet that undergoes major alterations or modifications or a building addition must be sprinklered.

As the gross floor area of the building is greater than 7,500 square feet, if the proposed work includes a major renovation or a building addition, then an automatic sprinkler system would be required for the existing building and any additions.

A hydrant flow test will be required to determine adequate Municipal water supply.

FIRE PROTECTION ASSESSMENT – DISPATCH AREA

The building is protected with an automatic sprinkler system fed from the municipal water supply. The system components are in good condition.

Existing Conditions:

The Police Dispatch area is fully sprinklered.



Concealed Pendent Sprinkler Head

Wet system piping is black steel with either coupling or threaded joints depending on pipe size. In general, ceiling area sprinklers are concealed pendent type.

RECOMMENDATIONS:

There are no recommendations at this time. The system is in good working order.

PLUMBING ASSESSMENT – FIRE DEPARTMENT

Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary waste and vent system, and natural gas.

In general, the fixtures in the building are in fair condition. Fixtures do not meet current codes for accessibility. Current Access Code requires accessible fixtures wherever plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require the fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water-conserving type fixtures.

In general, the drainage piping can be reused where buried underground and where adequately sized for the intended new use.

Plumbing Fixtures:

Water closets wall hung vitreous china with exposed manual flush valves.

Urinals are wall hung vitreous china, with exposed manual flush valves.

Lavatories are wall-mounted vitreous china with individual hot and cold handle faucets.

Drinking fountain is wall mounted with enameled steel cabinet and a push button control.

Kitchen sink is single bowl counter mounted stainless steel with deck mounted faucet and vegetable spray.

Janitor's sink is a floor mounted mop receptor with wall mount faucet. Faucet is equipped with vacuum breaker.

Showers are fiberglass units with single handle mixing valve and a removable hand held shower head.



Wall Mounted Water Closet



Urinal



Wall Hung Lavatory



Drinking Fountain



Kitchen



Mop Sink



Shower

Domestic Water Systems:

The water service enters the building in the Mechanical Room located in the Apparatus garage. Water service is 4" in size and includes a 2" water meter.

Water piping is copper tubing with sweat joints. Piping is in good condition.

There is a reduced pressure backflow preventer for the boiler water make-up.



Domestic Water Service



Water Meter

Domestic Hot Water System:

The main building hot water is generated through gas fired condensing boilers and a 55 gallon hot water storage tank. The condensate from the boilers run thru a neutralization tube and spill to a floor drain. The hot water system is circulated through the building. The system does not have a mixing valve and there is no expansion tank.



Gas Fired Condensing Boiler



Condensate Neutralization Tube



Hot Water Storage Tank

Compressed Air System:

Air compressor is a SpeedAire model 4B236B with a vertical air storage tank. Compressor is in good condition.



Air Compressor

Drainage Systems:

Sanitary, waste and vent piping is generally cast iron bell and spigot. Piping appears to be in good condition. There is no tight tank on site, all waste goes to sewage treatment plant.



Waste Piping

Vent Piping

ROOF Drainage Systems:

Building has sloped roofs. Portions of roof above entry ways drains to gutters and downspouts. Downspouts discharge to grade.



Sloped Roof with Gutter

Gas System:

Natural gas is provided to the building. Gas service is 1 ½" in size. Gas supplies the heating boiler. In general, piping is schedule 40 black steel with threaded fittings.



Gas Meter

RECOMMENDATIONS:

Provide new high efficiency low flow water conserving plumbing fixtures.

In general, existing cast iron drainage piping can be re-used if sized appropriately. We recommend video inspection of existing drains to confirm integrity.

Service neutralization tube at boilers.

PLUMBING ASSESSMENT

Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary waste and vent system, and natural gas.

In general, the fixtures in the building are in fair condition. Fixtures do not meet current codes for accessibility. Current Access Code requires accessible fixtures wherever plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require the fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water-conserving type fixtures.

In general, the drainage piping can be reused where buried underground and where adequately sized for the intended new use.

Plumbing Fixtures:

Pantry sink is single bowl counter mounted stainless steel with deck mounted faucet with hot and cold handles.



Pantry Sink

Drainage Systems:

Sanitary, waste and vent piping is generally cast iron bell and spigot. Piping appears to be in good condition.

RECOMMENDATIONS:

Provide new high efficiency low flow water conserving plumbing fixtures.

In general, existing cast iron drainage piping can be re-used if sized appropriately. We recommend video inspection of existing drains to confirm integrity.

Provide an open end drain to receive condensate from HVAC equipment.

HVAC ASSESSMENT – EXISTING FIRE DEPARTMENT

Heating System:

The building is primarily heated by two gas-fired high efficiency, energy star compliant, condensing hot water boilers. The boilers were manufactured by Lochinvar (Model Knight), and were installed circa 2009 according to documentation located in the boiler room. The boilers appear to be in very good physical condition.



Hot Water Boilers



Hot Water Pumps

Based on field observations and documentation from the Town’s Insurance Company that was located in the boiler room, the boilers do not appear to have external low water cut-off device controls. The boilers may have this control capability internally; therefore, we would recommend that the Owner confirm that the Insurance Company’s concern regarding this issue has been satisfied by providing information from the installing contractor or boiler manufacturer that these particular boiler models have a low water cutoff safety control feature. The boilers have externally mounted gas shut-off switches installed.

Hot water is distributed from the boilers to building hot water heating equipment, consisting of propeller type unit heaters, cabinet unit heaters, and an indoor air handling unit via a 2 pipe hot water piping distribution system. The hot water boilers also serve the domestic hot water heating tank for the building. There are two hot water circulator pumps located in the boiler room. The primary hot water pump, equipped with variable ECM motor, appears to be in good condition, was installed in 2009 and was manufactured by Wilo. The back-up hot water pump appears to be older in age, in fair condition and was manufactured by Bell & Gossett.

There is a floor mounted hot water expansion tank located in the boiler room. The expansion tank is un-insulated and appears to be in good condition. The hot water system piping is equipped with an air separator and air vent.

The majority of the hot water piping distribution system is insulated with fiberglass piping insulation. However some sections are missing insulation (or insulation facing jacket), or are insulated with “armor-flex” type insulation.



Hot Expansion Tank



Missing Insulation & "Armor-flex" type Insulation on HW Piping

The boilers' combustion products are vented thru the roof with PVC boiler breeching. The boilers are sealed combustion type boilers with PVC intake air venting. The intake and breeching terminate above the roof with a PVC concentric vent kit.

The hot water boiler system is controlled by Taco zone heating controllers. The heating system appears to have five (5) major zones: (1) Attic Air Handling Unit, (2) Front Entry Heating, (3) Rear Entry Heating, (4) Front Apparatus Bay Heating, and (5) Rear Apparatus Bay Heating. The building heating system has minimal zone thermostat controls, with multiple offices, dorm rooms and areas of the building being controlled by the same thermostat. The control thermostats are stand-alone electric/electronic type.



Boiler Concentric Vents

The entryway cabinet unit heaters appear to be originally installed equipment and in general appear to be in poor to fair condition.

Refer to Apparatus Bay and Ventilation & Air Conditioning Section of this report for additional information regarding Apparatus Bay Unit Heaters and Office/Dorm Area Air Handling Unit Heating systems.



Entryway Cabinet Unit Heater

Ventilation and Air Conditioning Systems:

The majority of the Office, Break Room and Dormitory areas of the building are ventilated and air conditioned by a combination of operable windows, and a split system DX cooling, hot water heating air handling unit which is located in the Attic.

The indoor air handling unit was installed circa 2009 and was manufactured by First Co. (Model 48VH8X8-HW). The unit is piped with refrigeration piping to an associated outdoor air cooled heat pump air cooled condensing unit. The heat pump air cooled condensing unit was manufactured by Carrier (Model 24ACB348A30, 208 V/1 ph, R410A), was installed in 2009, and has a cooling capacity of 45,500 btuh. Both the air handling unit and associated air-cooled condensing unit appear to be in good condition. The air handling unit provides heating via a unit mounted hot water heating coil which is piped to the building boiler plant.



Attic Air Handling Unit



Air Cooled Condensing Unit

Outdoor ventilation air that is provided to the air handling unit return ductwork section is pre-conditioned by a small heating energy recovery ventilation (ERV) unit located across from the air handling unit in the Attic. The ERV unit appears to be in good condition, was manufactured by LifeBreath and was installed circa 2009.



Attic ERV Unit



Attic AHU Ductwork



Supply Diffusers



AHU Thermostat

Supply and return ductwork is for the air handling unit system, primarily located in the Attic, and is routed from the air handling unit to supply diffusers and return registers in the Office, Break Room and Dormitory areas of the building. In some areas, it appears that supply air diffusers were added after the systems were originally installed in an effort to achieve better airflow movement and increased heating/cooling capacity to these areas. Several of the supply and return air distribution devices observed appeared to be slightly soiled and dirty. There appears to be excessive amounts of flexible ductwork installed in the Attic.



Restroom Ceiling Exhaust Fan



Attic Sidewall Exhaust Fan

The second floor restroom ceiling exhaust fan appears to be damaged and in poor condition.

The Attic is served by a sidewall propeller type exhaust fan, which appears to be originally installed equipment and in poor condition.

Supplemental Air Conditioning Systems:

The Second Floor Chief's office and corner office are heated and air conditioned by a packaged through wall air conditioner (PTAC) unit and a window air conditioning unit that has been installed through the exterior wall of the building. Both units appear to be in fair condition. These type of AC units are very inefficient and noisy in comparison to alternative HVAC systems which are typically used in Fire Station buildings.



Window Air Conditioner Unit



PTAC Type AC Units

There are two (2) ductless air conditioning units with associated outdoor air cooled condensing units. One system serves an office, and the other units provide cooling for IT equipment. One of the condensing units is supported from the exterior building wall via support steel, and the other unit is installed in the Apparatus bay, supported from the exterior wall with support steel. The ductless cooling unit systems appear to be in fair to good condition.



Air Cooled Condensing Unit (in Apparatus Bay)



Air Cooled Condensing Unit



Wall Mounted Ductless AC Unit

Apparatus Bay:

A vehicle exhaust air capture system is installed in the Apparatus Bay. The system was manufactured by Plymovent, and consists of vent-set exhaust fan and filter unit that is suspended from the apparatus bay roof framing. The vehicle exhaust system is ducted to vehicle exhaust hose drops and the building exterior by a galvanized steel sheetmetal distribution system. In general, the vehicle exhaust air system appears to be in good condition. There are five (5) exhaust hose drops installed.

Mechanical exhaust air is provided to the Apparatus Bay by a sidewall mounted propeller fan. Make-up air is introduced to the area through the apparatus bay doors. The fan is controlled by a wall-mounted switch. The sidewall exhaust fan appears to be in poor condition.

The Apparatus Bay is heated by four (4) ceiling suspended gas fired unit heaters. One unit heater, manufactured by Dayton appears to have been installed in recent years and is in good condition. Whereas the remaining three unit heaters, manufactured by Modine, appear to be originally installed equipment and are in fair to poor condition.



Vehicle Exhaust Fan



Vehicle Exhaust Hose Drop



Apparatus Bay – Hot Water Unit Heaters



Apparatus Bay – Heating Thermostat

RECOMMENDATIONS:

In general, we would consider the current existing heating, ventilation and air conditioning system to be minimalistic in design and function. Many of the exterior walls in the building are not insulated and have high levels of infiltration. There are minimal zone heating and cooling control zones. The majority of the terminal heating units and associated hot water piping are beyond or nearing the end of their useful service life. Several areas of the building do not appear to be provided with sufficient mechanical ventilation, air conditioning, and/or heating equipment installed in the direct area, and are only ventilated, air conditioned and heated indirectly from systems and equipment located in adjacent areas.

Therefore we recommend the following:

- **Heating System:** The existing heating system boilers are in good condition and could be re-used and should be serviceable for the next 10 years.
 - Existing hot water piping that is uninsulated or insulated with “armor-flex” type insulation should be provided with fiberglass insulation with all service jacket.
 - The existing Hot water air separator should potentially be replaced.
 - The building terminal heating unit heaters in the entry ways and the three originally installed Apparatus Bay hot water unit heaters should be replaced.

- New hot water fin tube radiation heating should be provided for second floor office, break-room and restroom areas to provide improved thermal comfort. Additional heating system control zones should also be provided.
 - New hot water piping should be provided to serve the new fin tube radiation heating. All existing to be re-used hot water piping should be cleaned, leak tested and chemically treated as part of a building renovation project.
- Ventilation and Air Conditioning: The existing second floor air handling unit appears to be in good condition. However there appears to be excessive amounts of flexible ductwork, and improper use of supply and return diffusers and registers in areas of the building. In addition, not all areas of the second floor appear to be directly served by the air handling unit. Therefore we recommend that additional sheet-metal ductwork is provided to reduce flexible ductwork lengths in some sections of the system, and new air distribution devices are provided in certain areas. In addition we recommend installing new, high efficiency AC systems to replace the window AC and PTAC AC units installed in the two, second floor corner office areas.
- New exhaust air fan systems should be installed for the restrooms and custodial closets in the building.
- The apparatus bay vehicle exhaust air system appears to be in good condition, and it appears that the system fans and ductwork distribution system could continue to be re-used. It is recommended that the system is fully tested, repaired as required, and maintained in accordance with manufacturers' recommendations. The sidewall exhaust fan should be replaced.
- The ductless AC systems currently installed could potentially be re-used, but should be tested and repaired/serviced as required as part of any planned renovation project.
- Controls: We recommend that all new and existing to be re-used HVAC systems are controlled by a newly installed direct digital control, energy management system for improved thermal comfort control and energy efficient system operation.

HVAC ASSESSMENT – POLICE STATION DISPATCH

The Police Station Dispatch area is primarily heated and air conditioned by an indoor fan coil air handling unit that is located above the ACT ceiling. The air handling unit has a split system DX evaporative cooling coil which is piped with refrigeration piping to an outdoor air cooled condensing unit. Supply air ductwork is ducted from the air handling unit to ceiling mounted supply diffusers.



Dispatch Area – Supply Diffuser



Dispatch Area – Electric Space Heater

The air handling unit was not observed at the time of our visit in order to minimize disruption to the Dispatch personnel and operations. However, based on discussions with Police Station staff, and as evidence by the Electric Space Heaters and Dehumidifier located within the space, it is our understanding that the heating and air conditioning system for the Dispatch area do not perform adequately at all times of the year, and the Dispatch area often has temperature control issues. The associated outdoor air cooled condensing unit appears to be in good condition.

The IT server room is air conditioned by a ductless wall mounted AC unit equipped with a wireless wall mounted thermostat and wall mounted condensate pump. The unit is piped to an outdoor condensing unit. The Server room is also ventilated by a ceiling cabinet type exhaust air fan located in the room. The fan is controlled by a wall mounted switch. The AC unit and fan appear to be in good condition, and it is our understanding that the systems maintain proper temperature control in the server room.



Server Room Ductless AC Unit



Server Room Exhaust Fan

Recommendations:

- Based on our field observations, recommend the following:
- Perimeter baseboard and radiant ceiling hot water heating should be installed to provide increased thermal comfort for the space during the heating season.
- The existing air handling unit ductwork distribution system could potentially be modified with bypass and zone control dampers to better modulate the amount of air flow and cooling to the Dispatch area. This would minimize the amount of over-cooling to the space and potentially eliminate or minimize the need for the use of space mounted electric heaters and humidifiers.
- All existing to remain equipment should be maintained per manufacturers' recommendations and be fully inspected and tested by licensed HVAC technician if they are to be re-used as part of a building renovation project.

ELECTRICAL ASSESSMENT – FIRE DEPARTMENT

Electrical Distribution System:

Secondary service runs underground between the pad mounted transformer and a 200 ampere, 277/480 volts, 3 phase, 4 wire main breaker panel located in the adjacent generator building.

The distribution panel feeds two 45 KVA transformers which feed two panels in the adjacent electric room. One panel is normal/emergency and the second panel is normal only.



Pad Mounted Transformer



Main Breaker Panel



Distribution Panels



Transformer

Branch Circuits:

Receptacles in Apparatus and Garage bays are not GFI protected. There are no cord reels in Apparatus Bays; vehicle battery charging is via extension cords plugged into wall outlets.

Receptacle coverage is inadequate, use of extension cords were noted. The use of extension cords for permanent wiring is a code violation.

Receptacles in Bunk Rooms are not arc-fault protected.

Interior Lighting:

The Apparatus Bay lighting consists of continuous rows of industrial strips between bays. Dispatch and Locker Room have 2 x 2 recessed parabolic fixtures.

Toilet Rooms have wall-mounted, linear fluorescent fixtures.

The Boiler Room has pendant mounted industrial strip fluorescent fixtures. Hallway and stairway has pendant mounted fixtures.

Lunch Room consists of 2'x4' recessed prismatic fluorescent fixtures, recessed down lights and under cabinet fixtures.

Bunk Room light fixtures consist of wall mounted surface cylinder fixtures. The Attic is provided with a surface wraparound fluorescent fixture.

The existing lighting fixtures although retrofitted with energy efficient lamps are generally in fair condition and not the most appropriate for the space.



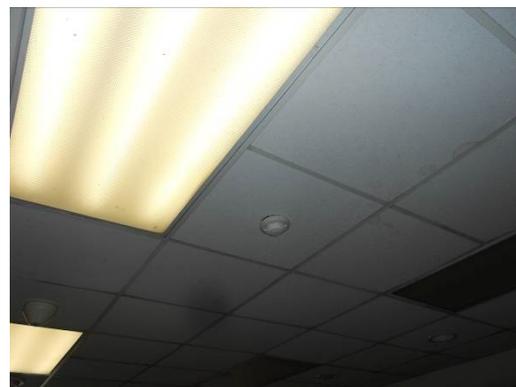
Apparatus Bay Lighting



Stairway



Bathroom



Lunch Room



Dispatch



Bedroom

Exterior Lighting:

There are pole mounted lights for parking areas. Wall sconces exist at one side of building. Building mounted area flood light is at the front corner of the building near the overhead door. Linear fluorescent light is provided under the canopy.

Exterior lighting is inadequate and is not dark sky compliant.



Pole Mounted Fixture



Wall Pack



Area Light



Canopy Lighting

Normal/Emergency Power System:

An interior 300 KW, 277/480 volts, 3 phase, 4 wire Caterpillar generator, diesel fired with sub base tank is located in a separate adjacent building. (Generator Building)

The existing generator is used for the fire station, police station, and town hall.

Three transfer switches exist, one for the police station, one for the town hall, and one for the fire station.

Exit signs are provided throughout the building.

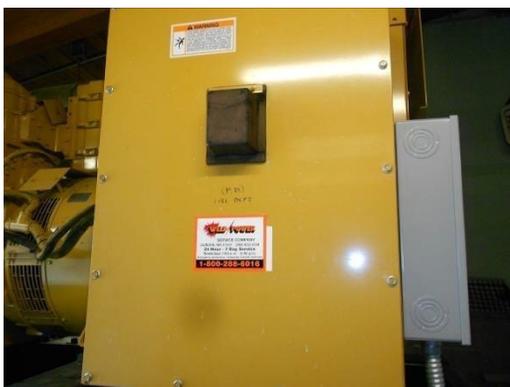
The existing emergency power system does not meet current codes which require a dedicated transfer switch and panel with fire rated feeders for life safety lighting and exit signs. The emergency transfer switches and panels for life safety are required to be housed in a dedicated fire rated room.



Interior Generator



Automatic Transfer Switch



Fire Department Generator



Breaker Exit Sign

Fire Alarm System:



Pull Station



Heat Detector

The fire alarm system consists of a conventional Mircom control panel located in the Dispatch Room. The form of alarm transmission is via a dedicated phone line.

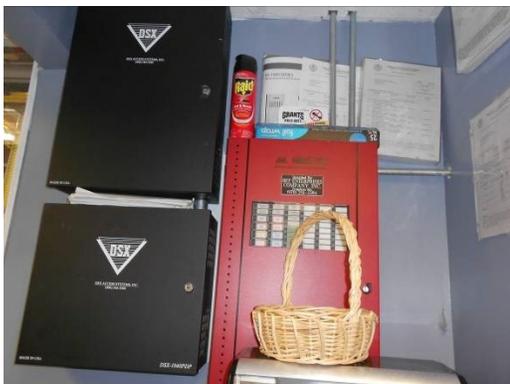
The notification devices consist of horn/ strobe in the Apparatus Bay. Detector devices consist of heat and smoke detector. Corridors do not have heat detectors.

Bathrooms have strobe only units. Attic has smoke detectors.

Pull stations exist but not at every exterior door. Pulls are not ADA accessible.

Bunk Rooms have wall mounted system smoke detectors. Local carbon monoxide detectors are located in the Bunk Rooms.

The fire alarm system is obsolete, offers inadequate coverage, and does not meet code. The system should be replaced.



Fire Alarm Control Panel



Strobe Only Device

Communications System:

The communication tel/data rack is located in the closet off of the Dispatch room. Wall fixtures are located throughout the building. A tri-pole antenna tower exists at the rear of building.



Communication Rack



Telephone Equipment



Wall Phone



Antenna

Security/Card Access/ CCTV System:

The facility has a closed circuit TV system. Wall mounted cameras are located in the apparatus bay, vestibule and exterior of the building.



Apparatus Bay Camera



Vestibule Camera

RECOMMENDATIONS:

New electrical panelboards should be provided to allow for circuitry expansion under a renovation program.

New energy efficient light fixtures should be provided. Occupancy sensors should be added to conserve energy.

Exterior LED lights should be provided on the building perimeter. All exterior lights should be dark sky compliant.

Apparatus Bay receptacles should be changed to GFI type. Additional receptacles should be provided. Cord reels should be added for vehicle charging outlets.

Bedroom receptacles should be added and existing protected with arc fault breakers.

The fire alarm system should be replaced with an addressable, ADA compliant system with full coverage.

A new emergency transfer switch should be provided to back up the facility's emergency lighting and exist signs. New emergency battery units could be provided as an alternative.

ELECTRICAL ASSESSMENT – POLICE DISPATCH

Electrical Distribution System:

Secondary service runs underground between the pad-mounted transformer and a 120/208 volt, 3 phase, 4 wire main service switch. The E-911 Uninterruptible Power Supply. One panel is located in the Communications Room.

The electrical panel is located directly in front of the E-911 UPS and is in violation of code.



Panel

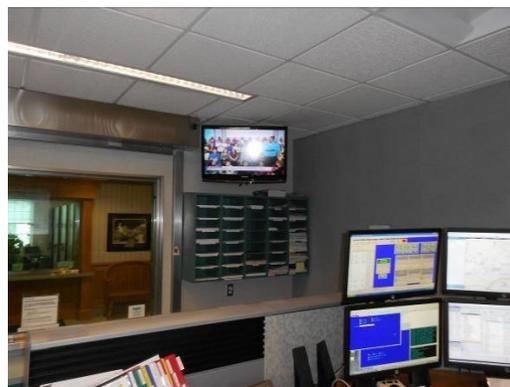
Interior Lighting:

The interior lighting generally consists of 2'x2' recessed fixtures with T8 lamps and recessed down lights in the dispatch room. Linear parabolic fluorescent is also found in the dispatch room.

General interior lighting is in good condition.



2x2 Recessed Fixtures



Recessed Linear Fluorescent

Emergency Power System:

The emergency power generator consists of a 300 KW, 375 KVA, 277/480 volts, 3 phase, 4 wire. The interior generator is located in a separate building and is shared with the Town Hall and Fire Department. A remote annunciator is located in Dispatch. The generator is manufactured by Caterpillar and is in good condition.



Generator



Generator Breaker

Fire Alarm System:

The fire alarm system consists of a remote annunciator and smoke detectors in the dispatch room.



Remote Annunciator



Smoke Detector

Communications System:

Cable TV, E-911 cabling, and town fiber network cabling terminate in the Communication Room.

The E-911 UPS, Uninterruptible Power Supply, Emergency electric panel, and the emergency communications rack are located in the Communication Room.

The tel/data rack is also located in the Communication Room.



Dispatch Area



UPS System



Data Rack



Emergency Communications Rack

RECOMMENDATIONS:

This existing communication room is extremely tight for all the equipment in the room. E-911 equipment should be moved to its own room with sufficient space required clearances are not provided as required for all the equipment to meet all clearance requirements.

REPORT FOR HAZARDOUS MATERIALS DETERMINATION SURVEY

Survey Date: October 29, 2014

Survey Conducted By: Universal Environmental Consultants 12 Brewster Road
Framingham, MA 01702

INTRODUCTION

UEC has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of twenty years of experience.

As part of the proposed renovation and demolition project, UEC was contracted by Dore & Whittier Architects to conduct the following services at the Westford Fire Station, Westford, MA:

- Inspection and Testing for Asbestos Containing Materials (ACM);
- Inspection for Polychlorinated Biphenyls (PCB's)–Electrical Equipment and Light Fixtures;
- Inspection for Lead Based Paint (LBP).

It is required that once a detailed scope of work is identified, a comprehensive inspection per the Environmental Protection Agency (EPA) NESHAP regulations and testing for other hazardous materials including PCB's should be performed, which would provide a more accurate hazardous materials abatement scope.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination of types of ACM found and cost estimates for remediation. Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) in accordance with EPA standard.

Bulk samples were collected by a Massachusetts licensed asbestos inspectors Mr. Leonard J. Busa (AI-030673) and analyzed by a Massachusetts licensed laboratory Asbestos Identification Laboratory, Woburn, MA.

Refer to samples results.

FINDINGS

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous areawere collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than

1 percent in accordance with EPA regulations. All suspect materials that contain any amount of asbestos must be considered asbestos if it is scheduled to be removed per the Department of Environmental Protection (DEP) regulations.

Number of Samples Collected:

Thirty (30) bulk samples were collected from the following materials suspected of containing asbestos:

Type and Location of Material:

1. 2' x 2' Suspended acoustical ceiling tile at second floor
2. 2' x 2' Suspended acoustical ceiling tile at dispatch
3. Wall joint compound at second floor
4. Wall joint compound at first floor bathroom
5. Wall joint compound at stairs up to bathroom
6. Wall joint compound at stairs
7. Wall joint compound at rear stairs
8. Hard joint insulation at space under rear stairs
9. Hard joint insulation at space under rear stairs
10. Black glue in fiberglass ceiling batting insulation at dispatch
11. Black glue in fiberglass wall batting insulation at first floor bathroom
12. New blue 12" x 12" vinyl floor tile
13. New blue 12" x 12" vinyl floor tile
14. Vinyl floor tile under plywood under new blue 12" x 12" vinyl floor tile
15. Older 12" x 12" vinyl floor tile under carpet at second floor
16. Mastic for older 12" x 12" vinyl floor tile under carpet at second floor
17. Older 12" x 12" vinyl floor tile under carpet at second floor
18. Mastic for older 12" x 12" vinyl floor tile under carpet at second floor
19. Older linoleum floor covering under carpet at first floor dispatch
20. Carpet glue at first floor dispatch
21. Vinyl floor tile under new linoleum flooring at first floor bathroom
22. Older linoleum under vinyl floor tile under new linoleum at first floor bathroom
23. Older linoleum under new linoleum at second floor bathroom
24. New grey vinyl floor tile at lobby
25. Exterior hard window glazing caulking
26. Interior glazing caulking for exterior window
27. Interior glazing caulking for exterior window
28. Roofing product debris behind heating unit at rear stairs
29. Exterior roofing shingle
30. Exterior roofing shingle

Sample Results:

Type and Location of Material	Sample Result
1. 2' x 2' Suspended acoustical ceiling tile at second floor	No Asbestos Detected
2. 2' x 2' Suspended acoustical ceiling tile at dispatch	No Asbestos Detected
3. Wall joint compound at second floor	2% Asbestos
4. Wall joint compound at first floor bathroom	2% Asbestos
5. Wall joint compound at stairs up to bathroom	2% Asbestos
6. Wall joint compound at stairs	2% Asbestos
7. Wall joint compound at rear stairs	5% Asbestos
8. Hard joint insulation at space under rear stairs	No Asbestos Detected
9. Hard joint insulation at space under rear stairs	No Asbestos Detected
10. Black glue in fiberglass ceiling batting insulation at dispatch	No Asbestos Detected
11. Black glue in fiberglass wall batting insulation at first floor bathroom	No Asbestos Detected
12. New blue 12" x 12" vinyl floor tile	No Asbestos Detected
13. New blue 12" x 12" vinyl floor tile	No Asbestos Detected
14. Vinyl floor tile under plywood under new blue 12" x 12" vinyl floor tile	No Asbestos Detected
15. Older 12" x 12" vinyl floor tile under carpet at second floor	No Asbestos Detected
16. Mastic for older 12" x 12" vinyl floor tile under carpet at second floor	No Asbestos Detected
17. Older 12" x 12" vinyl floor tile under carpet at second floor	No Asbestos Detected
18. Mastic for older 12" x 12" vinyl floor tile under carpet at second floor	No Asbestos Detected
19. Older linoleum floor covering under carpet at first floor dispatch	25% Asbestos
20. Carpet glue at first floor dispatch	No Asbestos Detected
21. Vinyl floor tile under new linoleum flooring at first floor bathroom	No Asbestos Detected
22. Older linoleum under vinyl floor tile under new linoleum at first floor bathroom	35% Asbestos
23. Older linoleum under new linoleum at second floor bathroom	25% Asbestos
24. New grey vinyl floor tile at lobby	No Asbestos Detected
25. Exterior hard window glazing caulking	2% Asbestos
26. Interior glazing caulking for exterior window	No Asbestos Detected
27. Interior glazing caulking for exterior window	2% Asbestos
28. Roofing product debris behind heating unit at rear stairs	No Asbestos Detected
29. Exterior roofing shingle	No Asbestos Detected
30. Exterior roofing shingle	No Asbestos Detected

OBSERVATION AND COST ESTIMATES

Observations:

All ACM must be removed by a Massachusetts licensed asbestos abatement contractor under the supervision of a Massachusetts licensed project monitor prior to any renovation or demolition activities that might disturb the ACM.

1. Wall joint compound was found to contain asbestos.
2. Older linoleum floor covering was found to contain asbestos.
3. Exterior hard window glazing caulking was found to contain asbestos.
4. All remaining suspect materials were found not to contain asbestos.
5. Roofing material was assumed to contain asbestos. Roofing material does not have to be removed by a licensed asbestos contractor. However, the General Contractor must comply with OSHA regulation during demolition and with state regulations for proper disposal.
6. Underground sewer pipe was assumed to contain asbestos.
7. Dampproofing on exterior and foundation walls was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle.
8. Painted surfaces were assumed to be LBP. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations.
9. Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed to contain PCB's since there were no labels indicating "No PCB's". Tubes, thermostats, exit signs and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be disposed in an EPA approved landfill as part of the demolition project.
10. Caulking materials were assumed to contain PCB's.

Cost Estimates:

The cost includes removal and disposal of all accessible ACM and an allowance for removal of inaccessible or hidden ACM that may be found during the demolition or renovation project.

Location	Material	Approximate Quantity	Cost Estimate (\$)
Throughout	Walls & Ceilings Joint Compound	8,000 SF	32,000.00
First Floor Bathroom	Multiple Layers of Flooring	40 SF	400.00
First Floor Dispatch	Multiple Layers of Flooring	160 SF	800.00
Second Floor	Multiple Layers of Flooring	1,000 SF	5,000.00
	Light Fixtures	Unknown	2,500.00
	Miscellaneous Hazardous Materials	Unknown	2,500.00
Exterior	Windows	20 Total	4,000.00
	Transite Sewer Pipes	Unknown ¹	15,000.00
	Damproofing on Exterior Foundation Walls	Unknown ¹	50,000.00
PCB's Remediation ²			7,000.00
Estimated costs for ACM Inspection and Testing Services			3,500.00
Estimated costs for PCB's Testing and Abatement Plans Services ²			8,500.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			17,800.00
Total			150,000.00

¹: Part of total demolition.

²: Should results exceed EPA limit.

DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560f5-85-030a.

Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA method 600fM4-82-020.

Inspected By:



Leonard J. Busa
Asbestos Inspector

LIMITATIONS AND CONDITIONS

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Preliminary Cost Estimate

PRELIMINARY Estimated Project Costs Summary		26-Feb-15	
Westford Fire Study, Westford, MA		DRAFT	
<p>The following is a summary of Estimated Project Costs developed for the Westford Fire Study. The options developed are conceptual in nature and therefore the estimated costs are intended to provide a preliminary order of magnitude view at the potential project costs. Project costs consist of estimated site and building construction costs, design and construction contingencies, phasing, soft costs to cover the values of the design team, owner's project manager, investigative services, etc. and fixtures, furniture and technology costs.</p> <p>The Project Costs have been escalated 5% to reflect a March 2016 construction bid which is consistent with current construction market understanding. This by no means takes into account unknown situations that could negatively affect the market which may further increase costs beyond those presented in this document.</p>			
		Estimated	
Options:	Sq. Footage	Project Costs	Comments
Option 1:			
Center Station - New at Boston Road Site	22300	\$ 12,772,200	
New Dispatch in Existing Police Training Room	2060	\$ 1,029,000	
Project Cost Summary		\$ 13,801,200	
Center Station - New at Boston Road Site with Dispatch	22900	\$ 13,493,550	

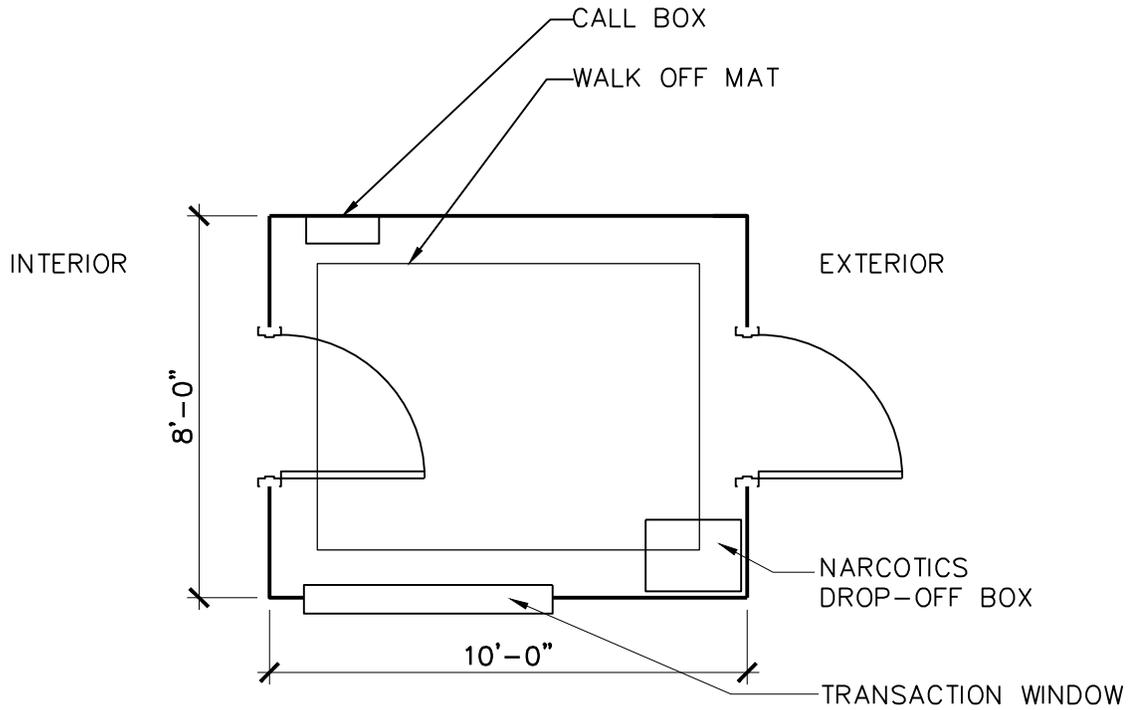
Option 1: Center Station - New at Boston Road Site					
		Sq. Footage:	Estimated Cost:	Comments:	
Construction Costs:					
	Site Development		\$ 1,200,000	20% of Building Costs	
	Existing Building Demolition	8900	\$ 89,000		
	Hazardous Materials Abatement		\$ 150,000		
	Building Construction:				
	Renovation	0			
	New Construction	22300	\$ 6,132,500	\$ 275	per sf
	Total Square Footage:	22300			
Construction Subtotal:			\$ 7,571,500	\$ 340	per sf
	General Conditions	8%	\$ 605,720		
	Bonds and Insurance	2%	\$ 151,430		
	Permit (assume waived by Town)	1.5%	\$ -		
	Fee	3%	\$ 227,145		
	Design and Estimating Contingency	10%	\$ 855,580		
Estimated New Construction Cost:			\$ 9,411,375	\$ 422	per sf
	Construction Phasing Costs:		\$ -	Temp Fire Quarters / Moving	
Estimated Total Construction Cost:			\$ 9,411,375	\$ 422	per sf
Estimated Construction Contingency:			\$ 470,569	5% of construction	
Soft Costs:					
	Owner's Project Manager,				
	Arch / Engineering, Owner direct,				
	Geotechnical, Permitting,				
	Printing, Legal, etc.				
	Subtotal		\$ 1,882,275	20% of construction	
Fixtures Furnishings and Equipment (FF&E):					
	Subtotal		\$	Allowance	
Project Cost Summary:					
	Construction Costs		\$ 9,411,375		
	Construction Contingency		\$ 470,569		
	Soft Costs		\$		
	FF&E Costs		\$		
	Estimated Total Project Costs		\$ 12,164,000	\$ 545	per sf
	1 Year Escalation Cost @ 5% of Project		\$ 608,200.00		
Estimated Total Project Cost with Escalation			\$		

Option 1: New Dispatch in Existing Police Training Room					
		Sq. Footage:	Estimated Cost:	Comments:	
Construction Costs:					
	Site Development				
	Existing Building Demolition		\$ -		
	Hazardous Materials Abatement				
	Building Construction:				
	Renovation (Dispatch)	1200	\$ 240,000	\$ 200	per sf
	Renovation (Records)	860	\$ 86,000	\$ 100	per sf
	New Construction		\$ -		per sf
	Total Square Footage:	2060			
Construction Subtotal:			\$ 326,000	\$ 158	per sf
	General Conditions	8%	\$ 26,080		
	Bonds and Insurance	2%	\$ 6,520		
	Permit (assume waived by Town)	1.5%	\$ -		
	Fee	3%	\$ 9,780		
	Design and Estimating Contingency	10%	\$ 36,838		
Estimated New Construction Cost:			\$ 405,218	\$ 197	per sf
	Construction Phasing Costs:				
Estimated Total Construction Cost:			\$ 405,218	\$ 197	per sf
Estimated Construction Contingency:			\$ 48,626	12% of construction	
Soft Costs:					
	Owner's Project Manager,				
	Arch / Engineering, Owner direct,				
	Geotechnical, Permitting,				
	Printing, Legal, etc.	Subtotal	\$ 101,305	25% of construction	
Fixtures Furnishings and Equipment (FF&E):					
	Dispatch				
	(2) Stations		\$ 150,000		
	(2) Existing Stations Relocated		\$ 20,000		
	Digitize Fire Alarm Receiver		\$ 100,000		
	Fire Station Control Center		\$ 80,000		
	E-911 Modifications		\$ 10,000		
	Generator Modifications		\$ 65,000		
	Subtotal		\$ 425,000		
Project Cost Summary:					
	Construction Costs		\$ 405,218		
	Construction Contingency		\$ 48,626		
	Soft Costs		\$ 101,305		
	FF&E Costs		\$ 425,000		
Estimated Total Project Costs			\$ 980,000	\$ 476	per sf
1 Year Escalation Cost @ 5% of Project			\$ 49,000		
Estimated Total Project Cost with Escalation			\$ 1,029,000		

Option 2: Center Station - New at Boston Road Site with Dispatch					
			Sq. Footage:	Estimated Cost:	Comments:
Construction Costs:					
Site Development			\$1,200,000	20% of Building Costs	
Existing Building Demolition		8900	\$ 89,000		
Hazardous Materials Abatement			\$ 50,000		
Building Construction:					
Renovation		0			
New Construction		22300	\$ 6,132,500	\$ 275	per sf
Dispatch		600	\$ 165,000	\$ 275	per sf
Total Square Footage:		22900			
Construction Subtotal:			\$ 7,736,500	\$ 347	per sf
General Conditions		8%	\$ 618,920		
Bonds and Insurance		2%	\$ 154,730		
Permit (assume waived by Town)		1.5%	\$ -		
Fee		3%	\$ 232,095		
Design and Estimating Contingency		10%	\$ 874,225		
Estimated New Construction Cost:			\$ 9,616,470	\$ 420	per sf
Construction Phasing Costs:			\$ -	Temp Fire Quarters / Moving	
Estimated Total Construction Cost:			\$ 9,616,470	\$ 420	per sf
Estimated Construction Contingency:			\$ 480,823	5% of construction	
Soft Costs:					
Owner's Project Manager,					
Arch / Engineering, Owner direct,					
Geotechnical, Permitting,					
Printing, Legal, etc. Subtotal			\$ 1,923,294	20% of construction	
Fixtures Furnishings and Equipment (FF&E):					
Dispatch					
(2) Stations			\$ 150,000		
(2) Digitize Fire Alarm Receivers			\$ 200,000		
Fire Station Control Center			\$ 80,000		
Office Technology			\$ 200,000		
Furnishings and Equipment			\$ 200,000		
Subtotal			\$ 830,000		
Project Cost Summary:					
Construction Costs			\$ 9,616,470		
Construction Contingency			\$ 480,823		
Soft Costs			\$ 1,923,294		
FF&E Costs			\$ 830,000		
Estimated Total Project Costs			\$ 12,851,000	\$ 561	per sf
1 Year Escalation Cost @ 5% of Project			\$ 642,550.00		
Estimated Total Project Cost with Escalation			\$ 13,493,550		

Appendix A

PUBLIC SPACES



**80 SF
VESTIBULE**

SCALE: 1/4" = 1'-0"



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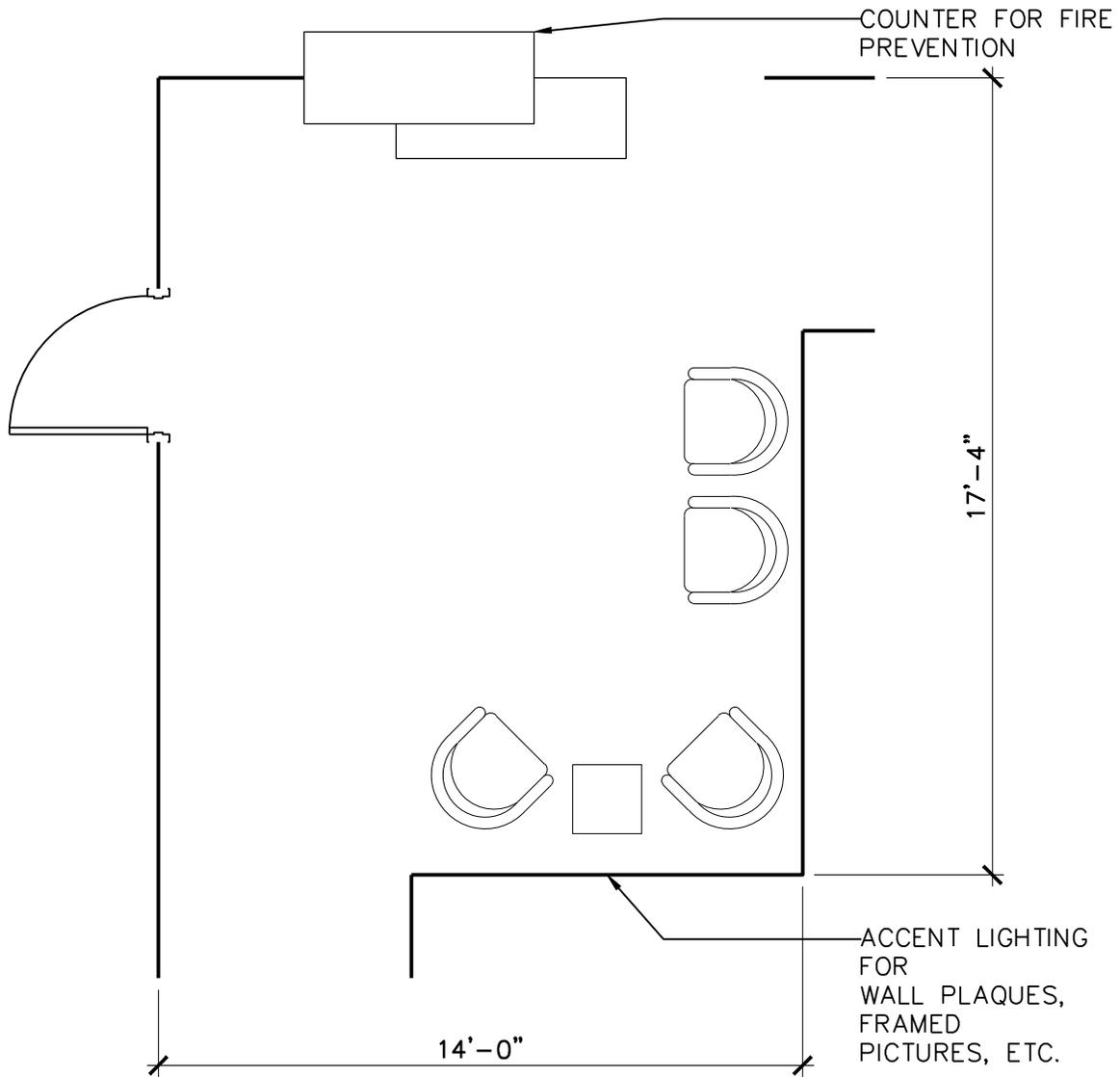
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250 SF
LOBBY / WAITING

SCALE: 1/4" = 1'-0"



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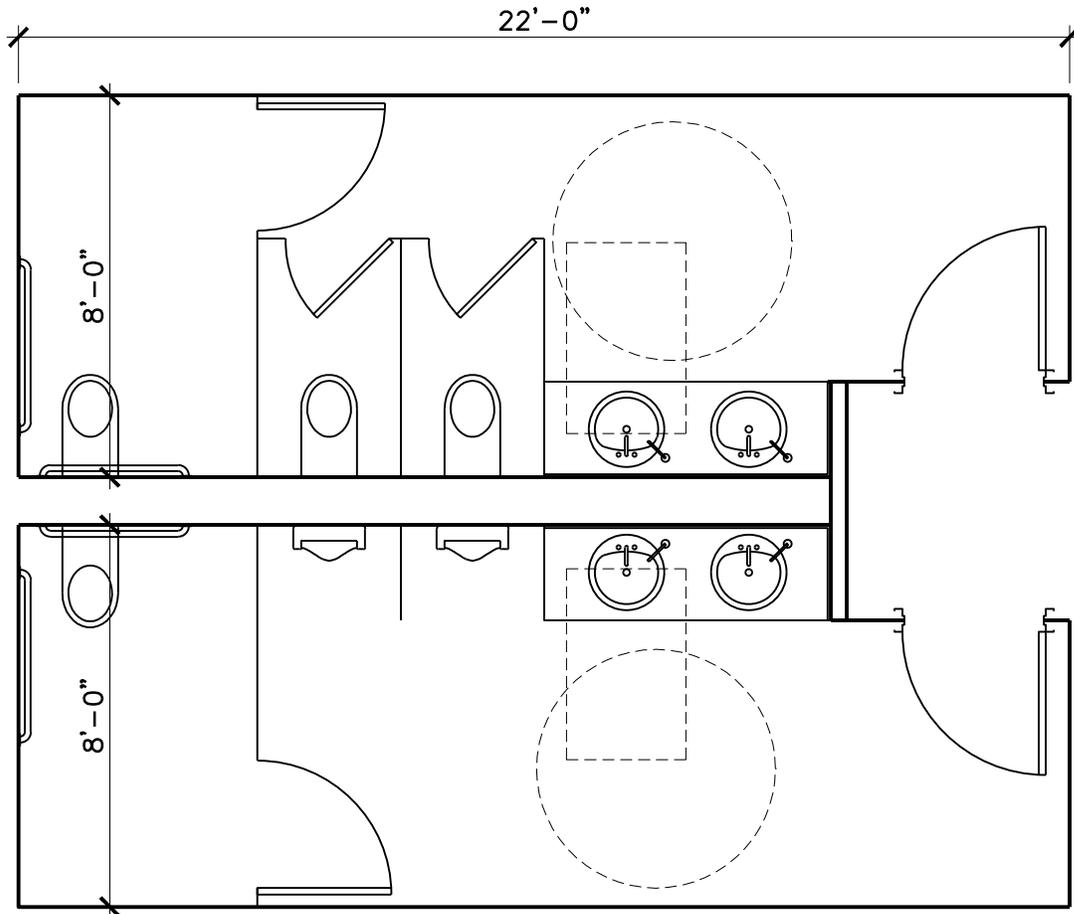
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2 INSTANCES:
PUBLIC SIDE AND ADMINISTRATION

375 SF
RESTROOMS

SCALE: 1/4" = 1' - 0"



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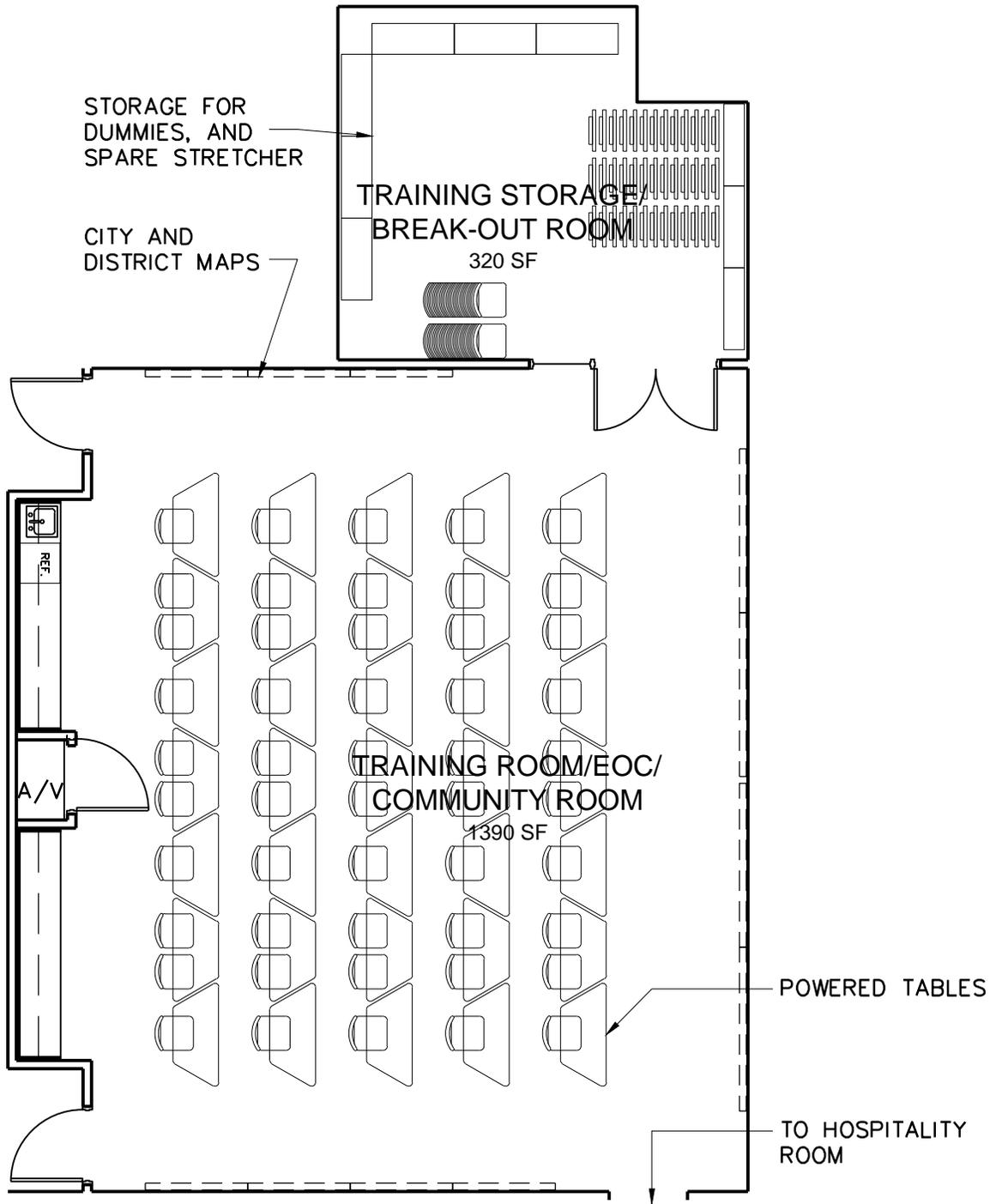
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1390 + 320 SF (50 OCCUPANTS)

COMMUNITY/ TRAINING ROOM

SCALE: 1/8" = 1' - 0"



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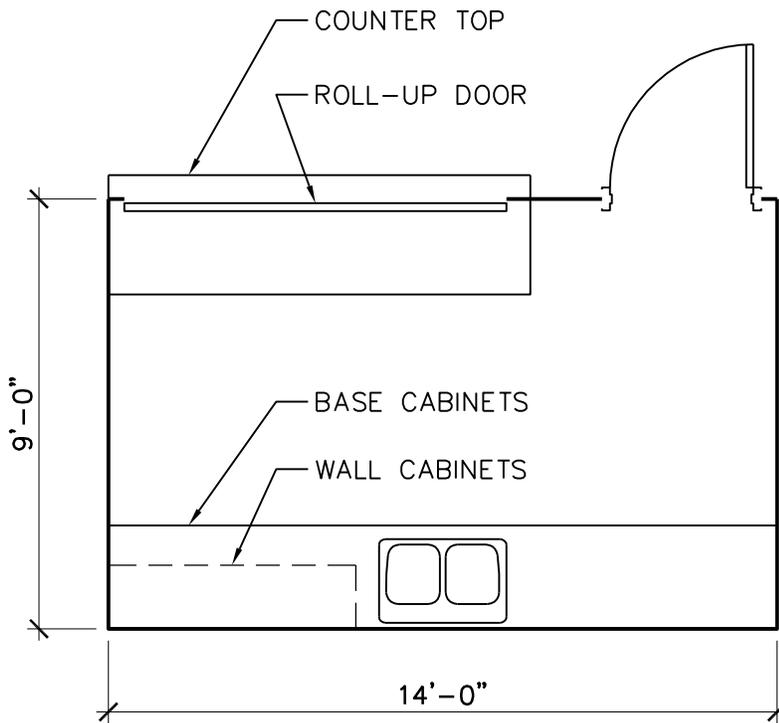
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126 SF
HOSPITALITY

SCALE: 1/4" = 1'-0"



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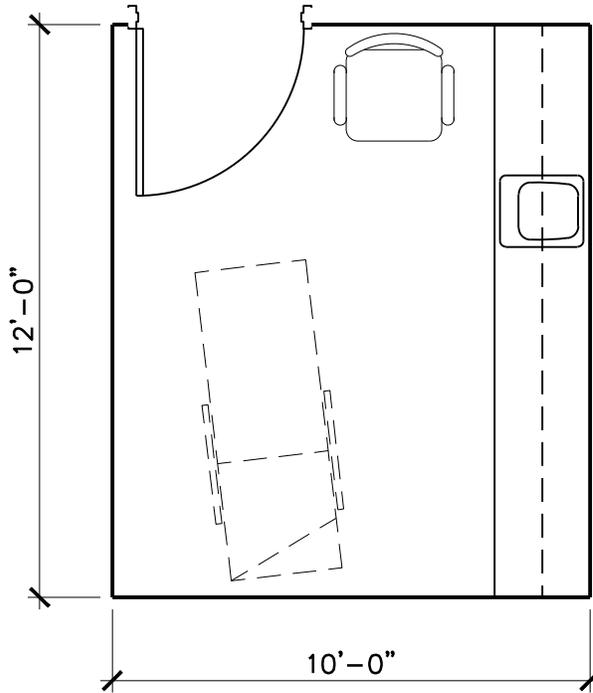
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120 SF
TRIAGE ROOM

SCALE: 1/4" = 1' - 0"



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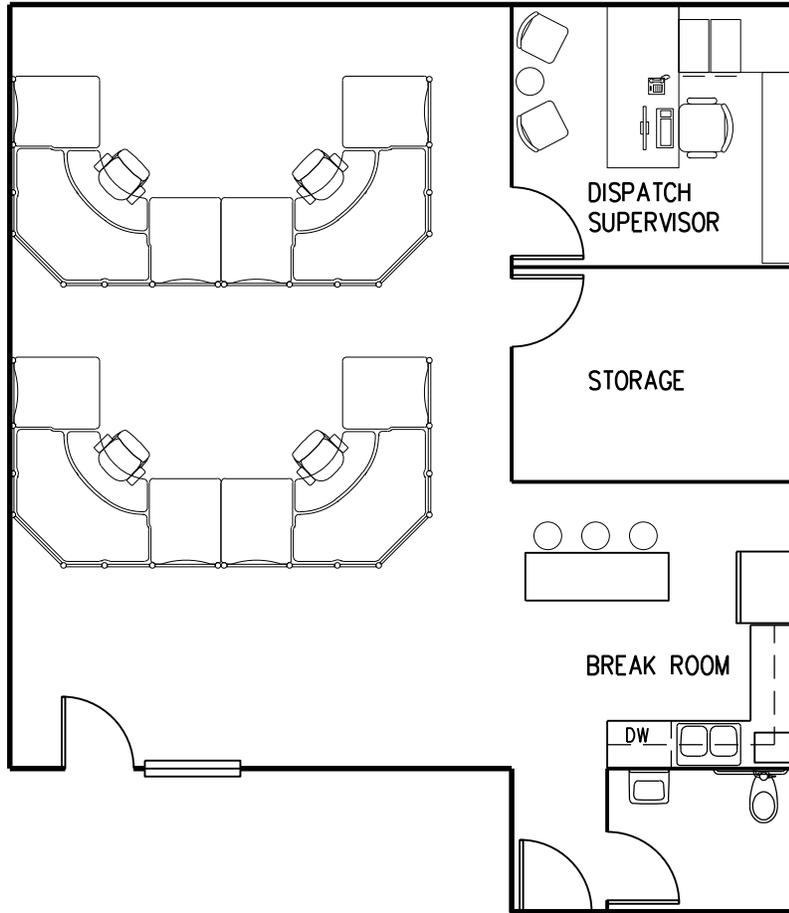
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SHARED SPACES



1288 SF
DISPATCH / ALARM

SCALE: 1/8" = 1' - 0"



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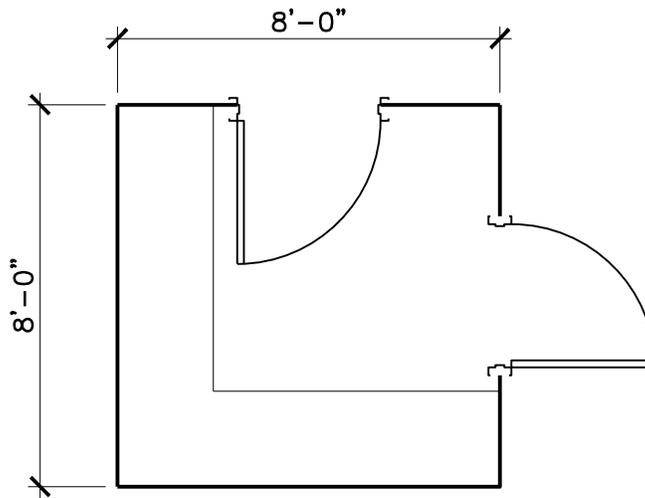
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64 SF
MAIL DELIVERY

SCALE: 1/4" = 1'-0"



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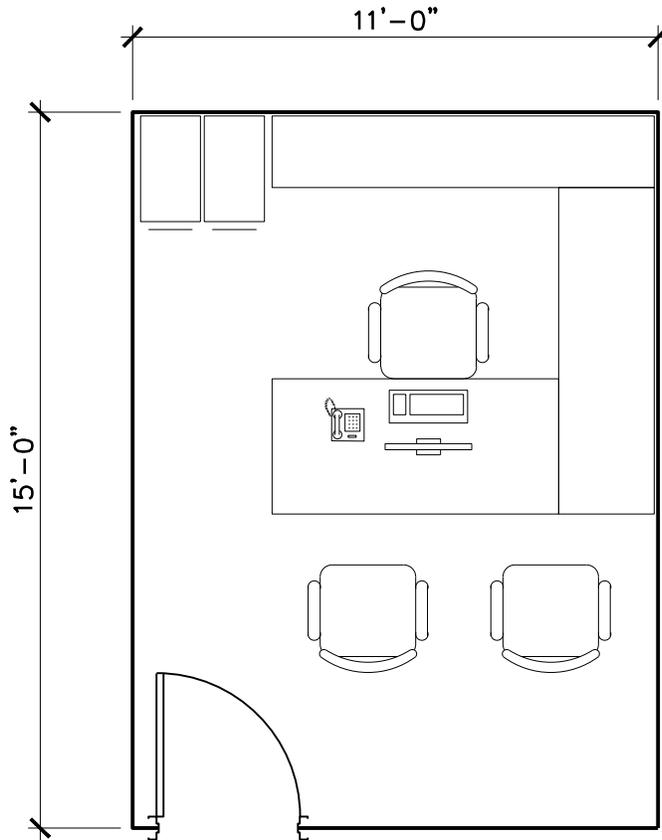
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TECHNOLOGY SPACES



165 SF
OFFICE

SCALE: 1/4" = 1' - 0"



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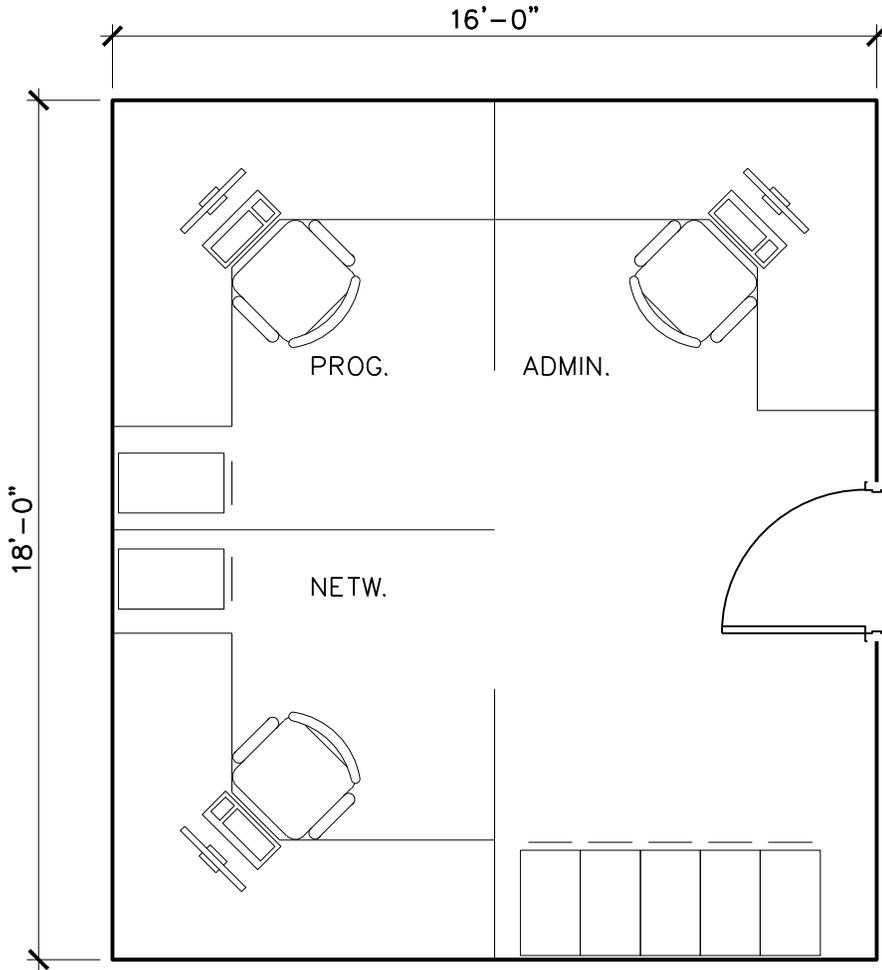
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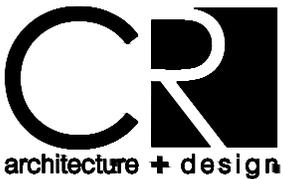
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288 SF
SHARED OFFICE

SCALE: 1/4" = 1' - 0"



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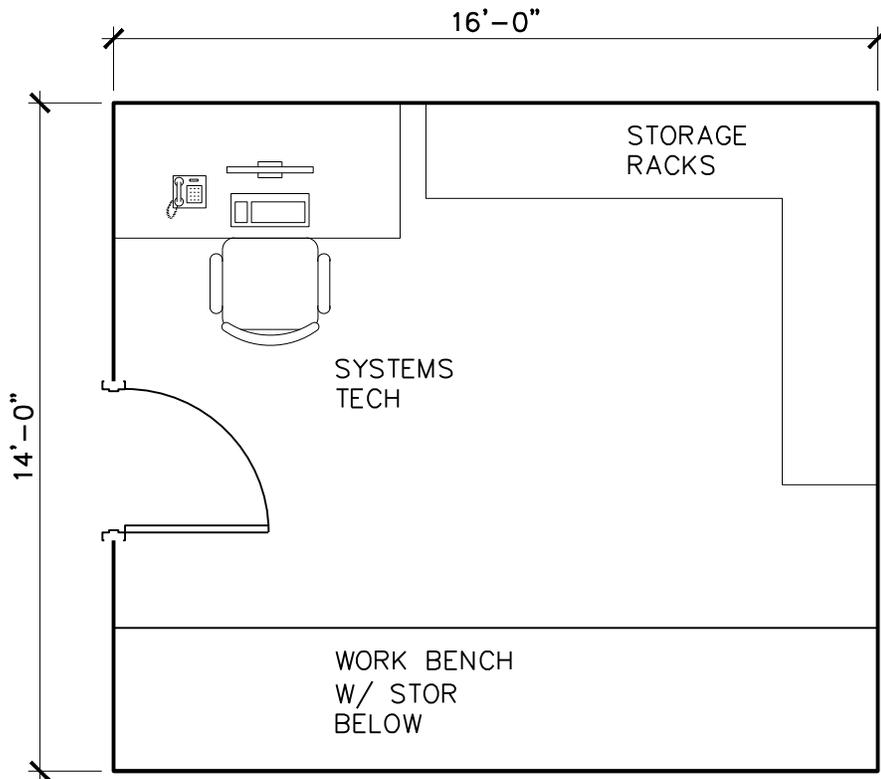
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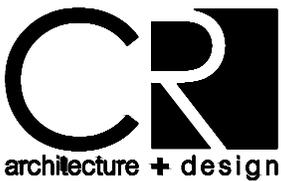
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224 SF
TECH WORK AREA

SCALE: 1/4" = 1'-0"



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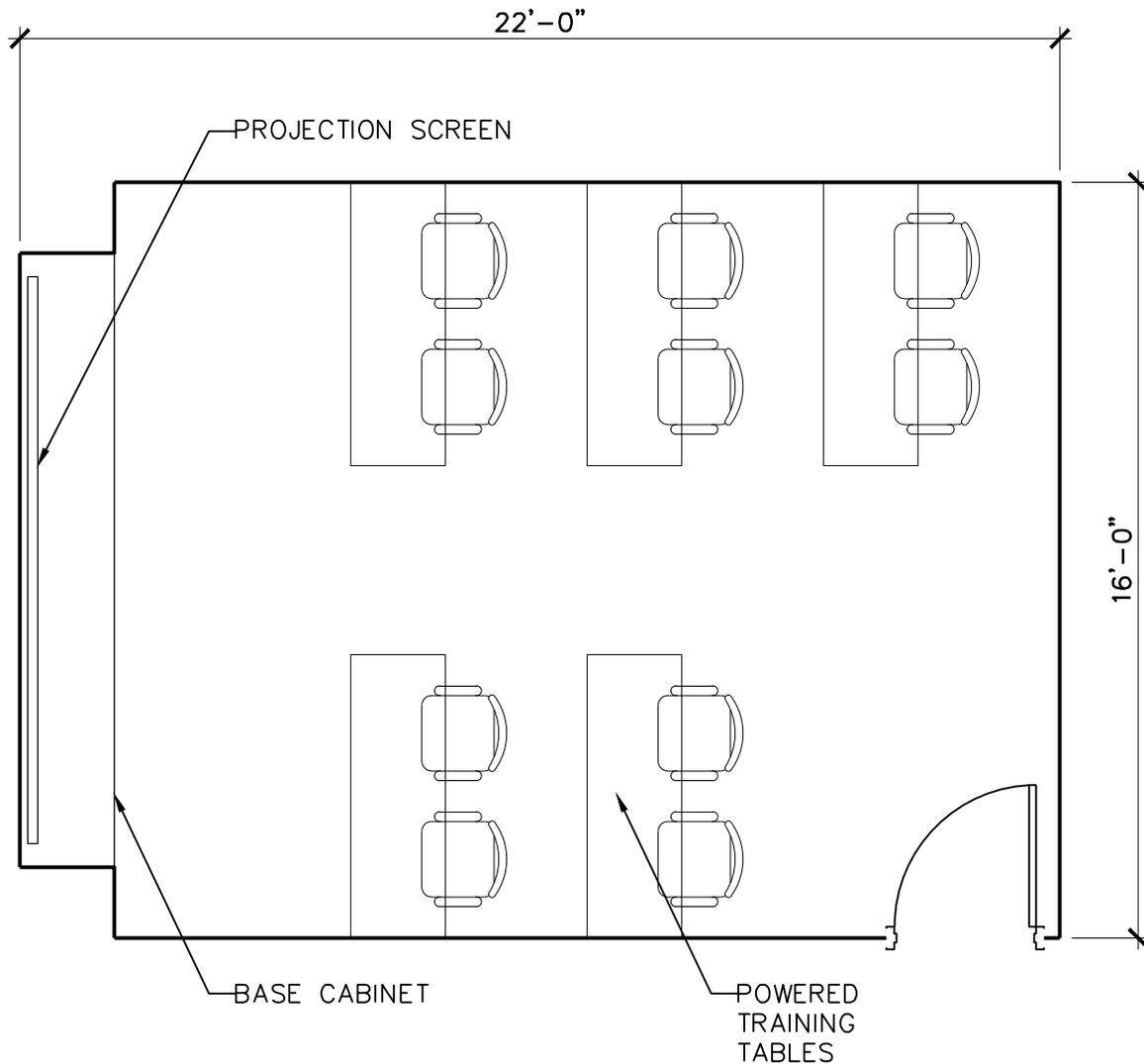
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352 SF
TRAINING ROOM

SCALE: 1/4" = 1'-0"



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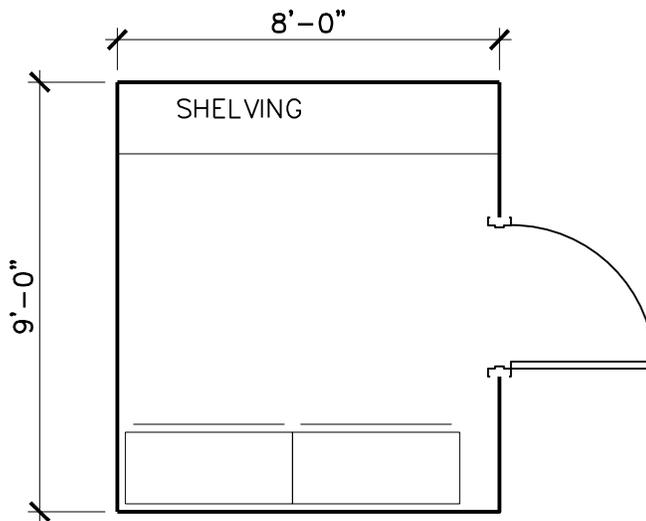
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72 SF
FILE STORAGE

SCALE: 1/4" = 1'-0"



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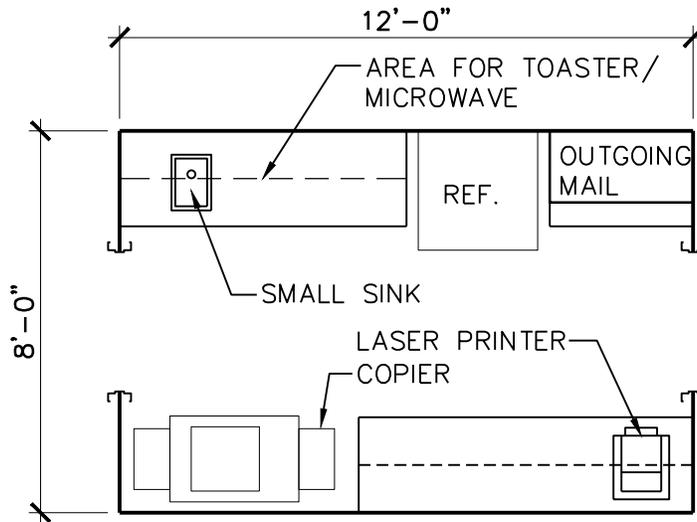
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96 SF
WORK ROOM

SCALE: 1/4" = 1'-0"



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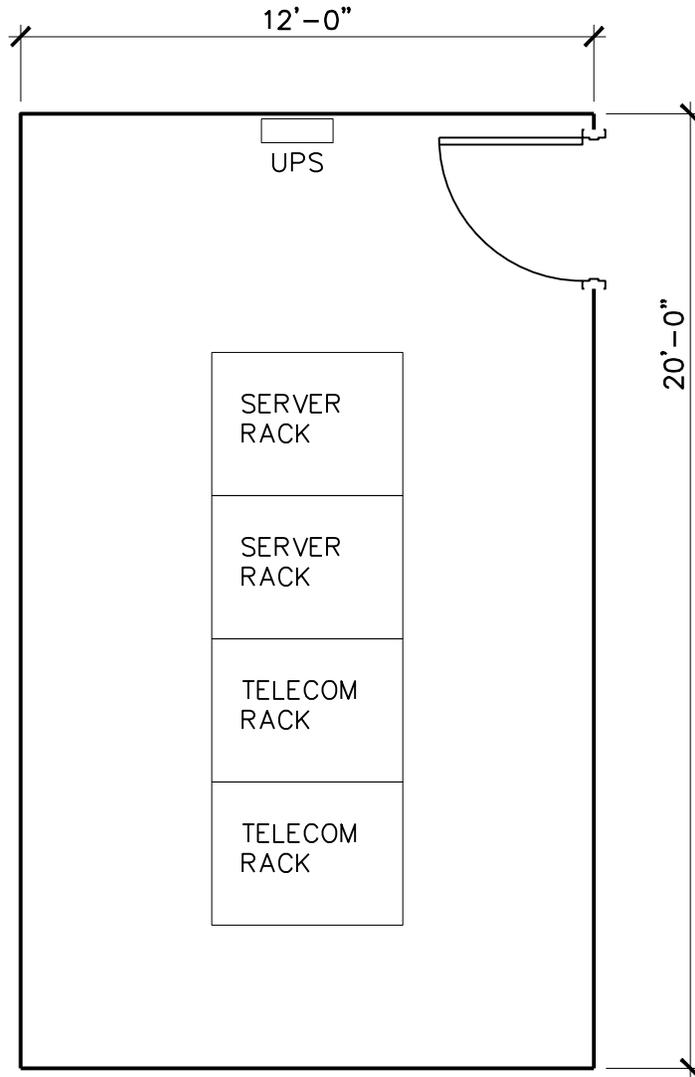
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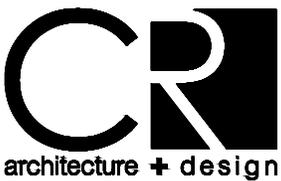
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240 SF
SERVER ROOM

SCALE: 1/4" = 1' - 0"



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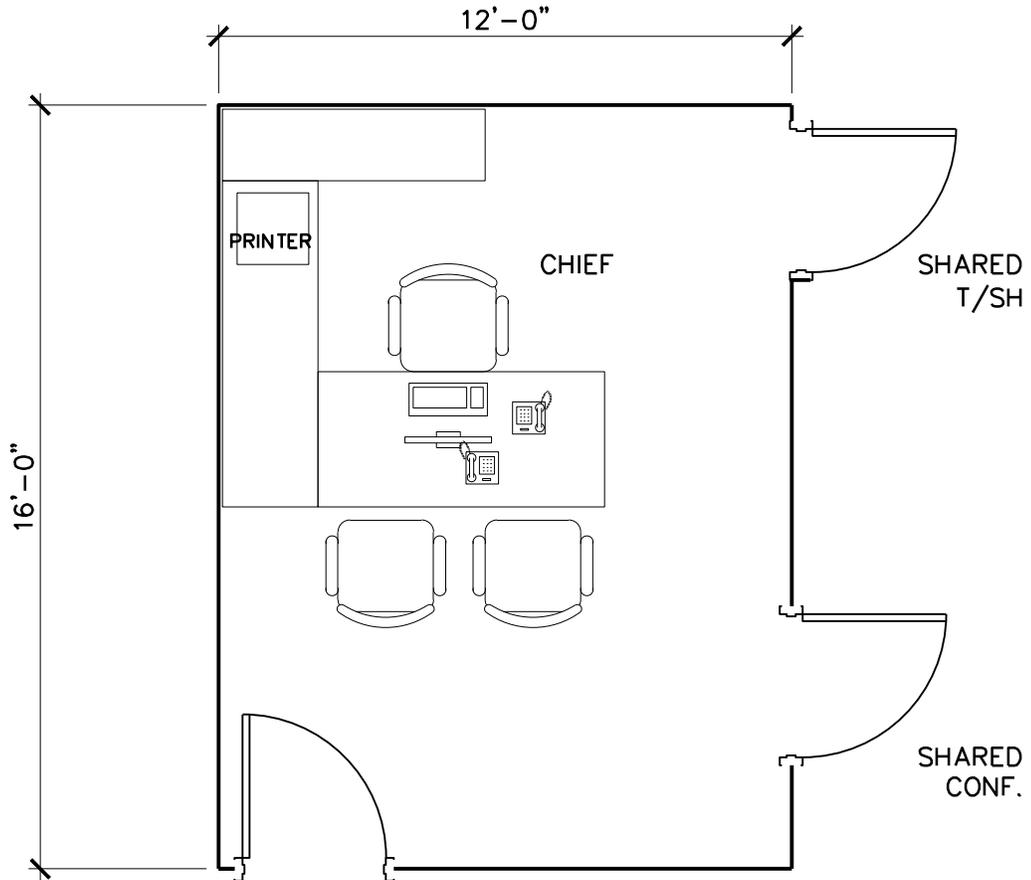
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**FIRE DEPARTMENT
ADMINISTRATION SPACES**



192 SF
CHIEF'S OFFICE

SCALE: 1/4" = 1'-0"



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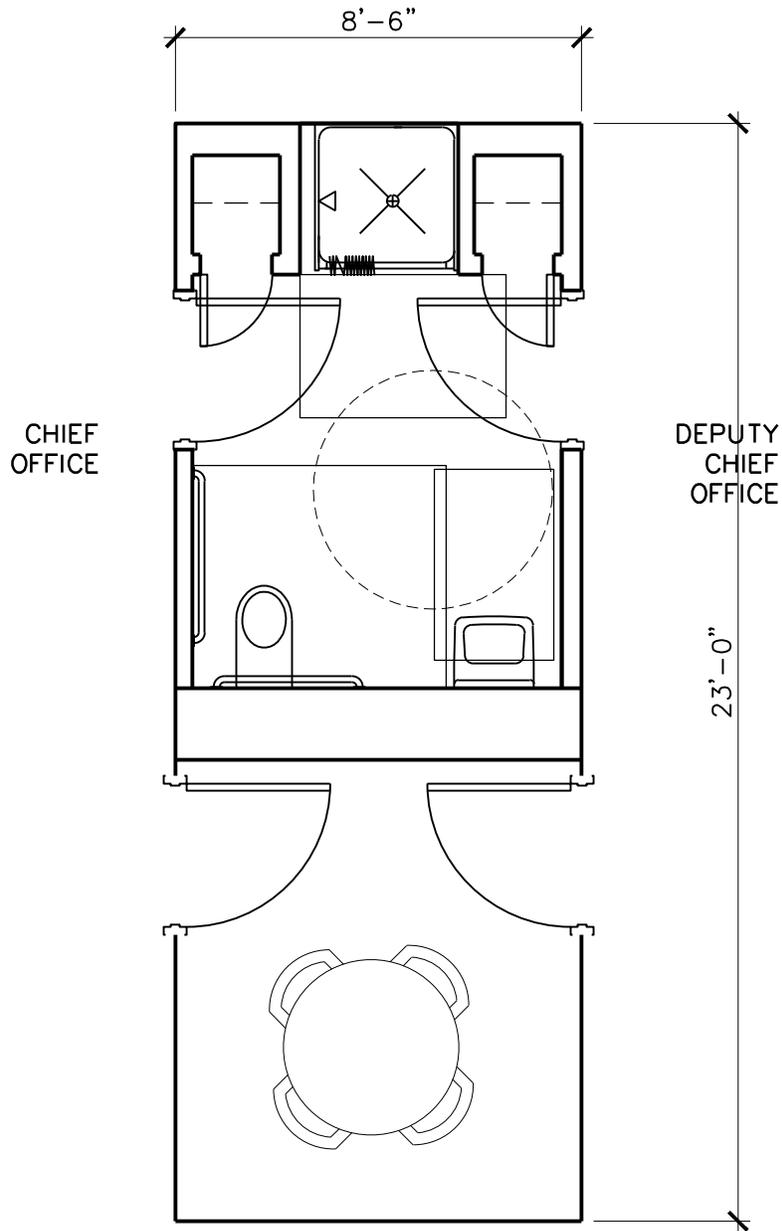
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195 SF
EXEC T/SH + CONF

SCALE: 1/4" = 1'-0"



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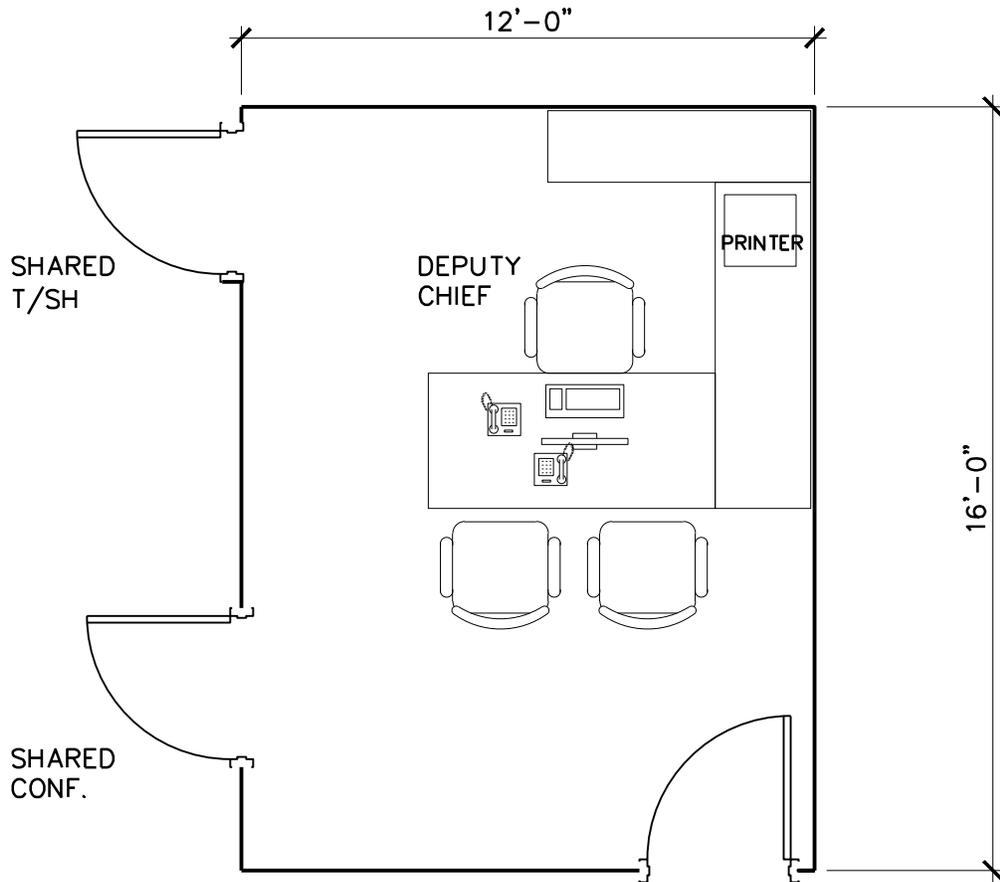
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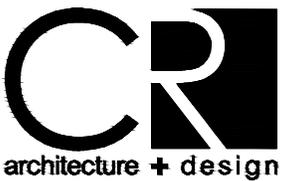
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192 SF
ASSISTANT CHIEF'S OFFICE

SCALE: 1/4" = 1' - 0"



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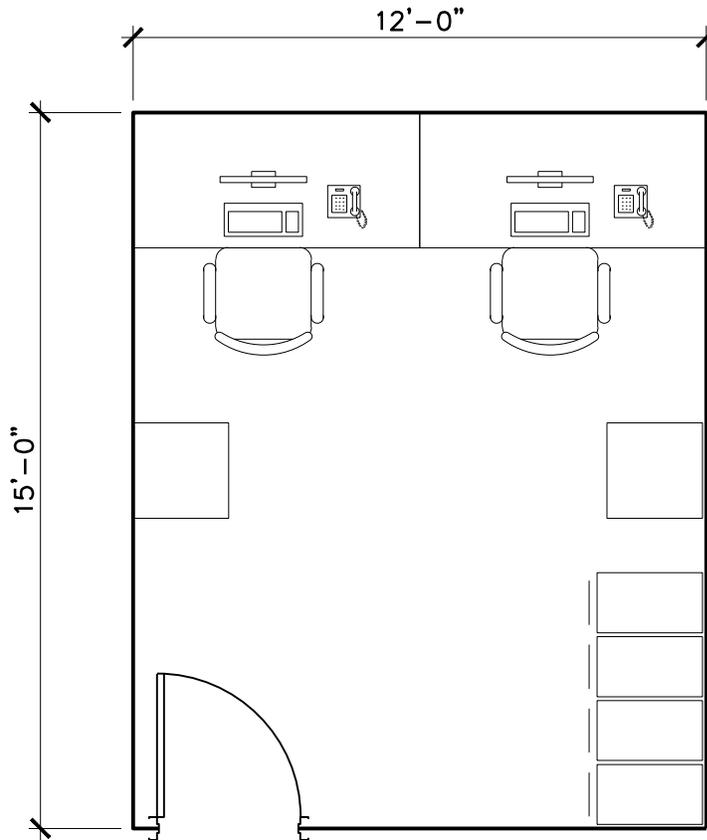
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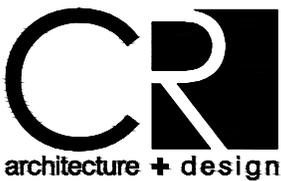
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2 INSTANCES:
 ALS/CLINICAL COORDINATOR (SHARED, 2 DESKS)
 FIRE INVESTIGATION/ TRAINING

**180 SF
 OFFICE**

SCALE: 1/4" = 1'-0"



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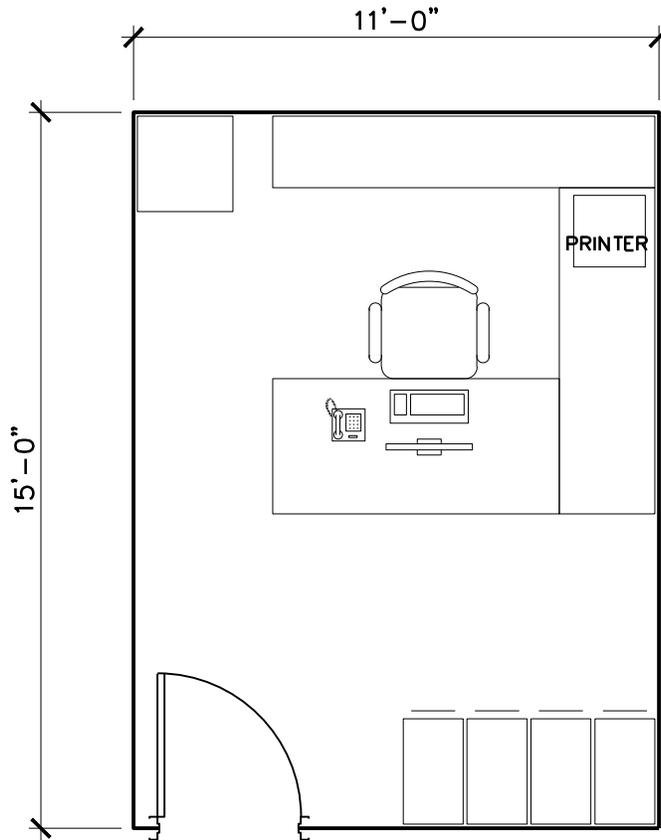
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1 INSTANCE:
OFFICE MANAGER

165 SF
OFFICE

SCALE: 1/4" = 1'-0"



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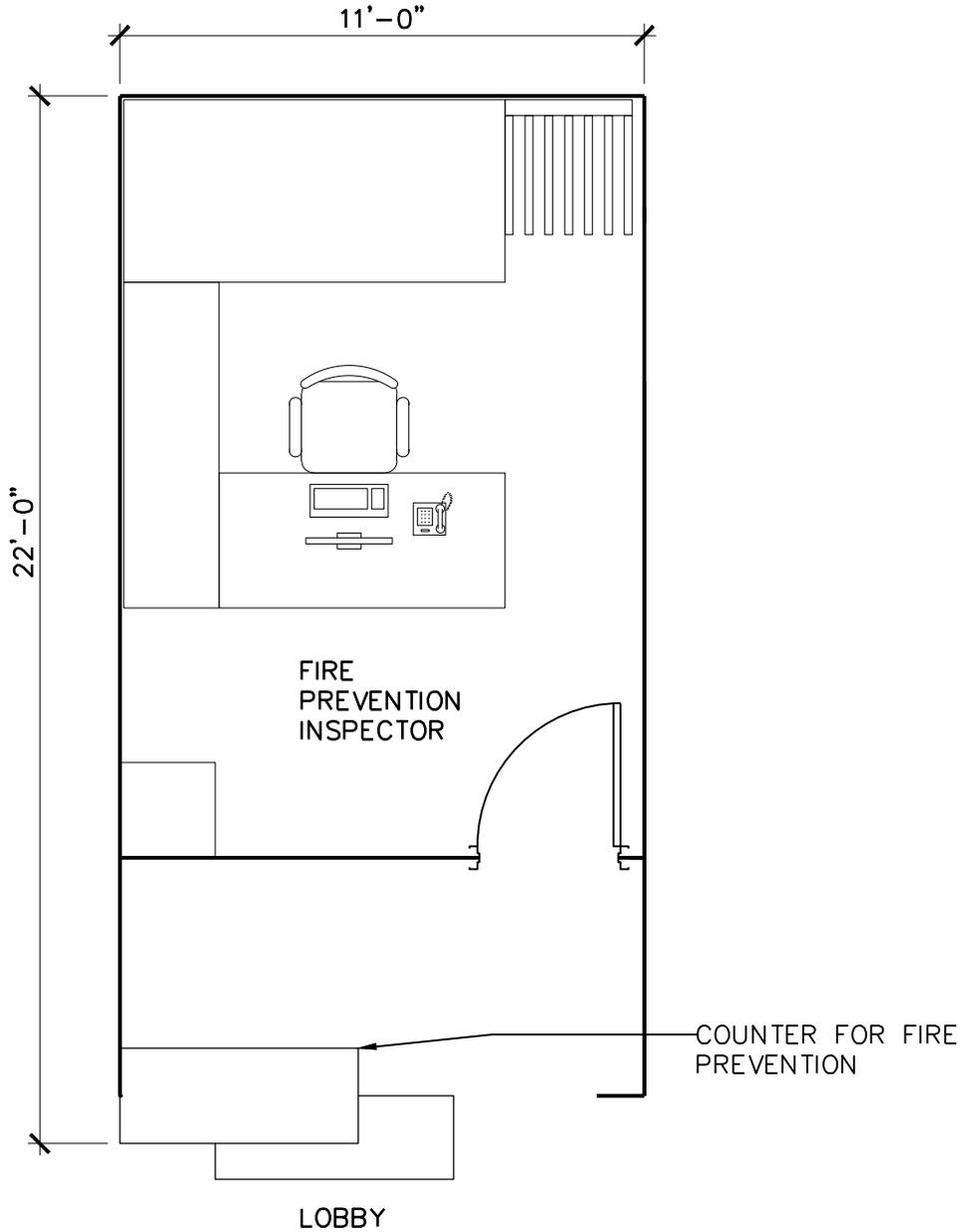
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242 SF
FIRE PREVENTION OFFICE

SCALE: 1/4" = 1'-0"



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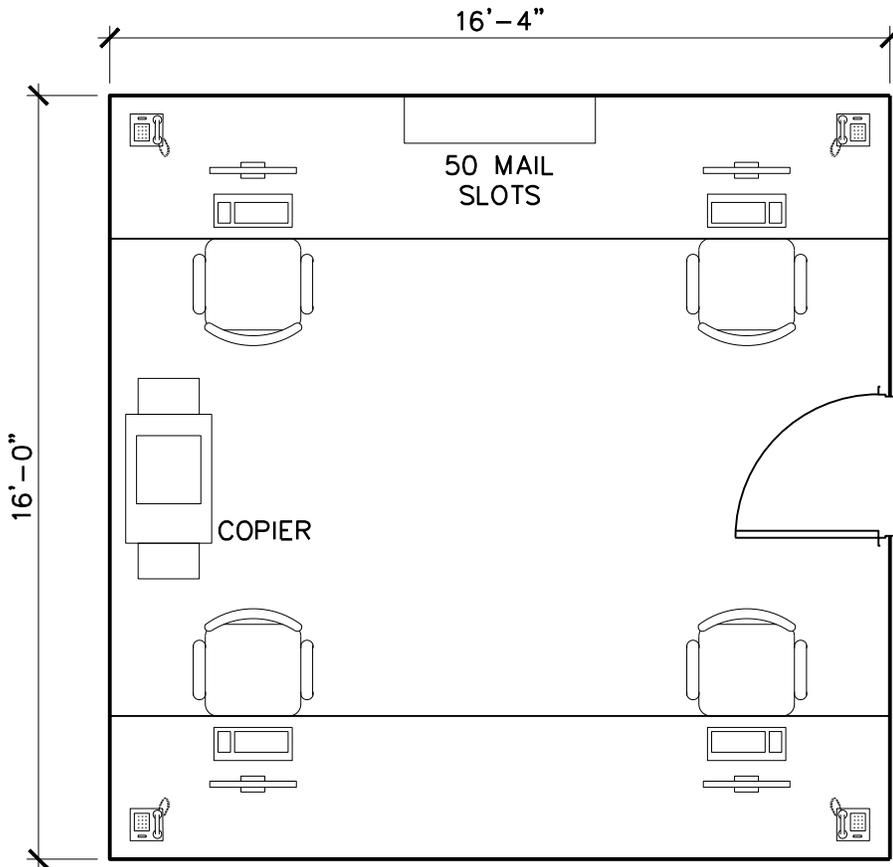
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260 SF
REPORT ROOM

SCALE: 1/4" = 1'-0"



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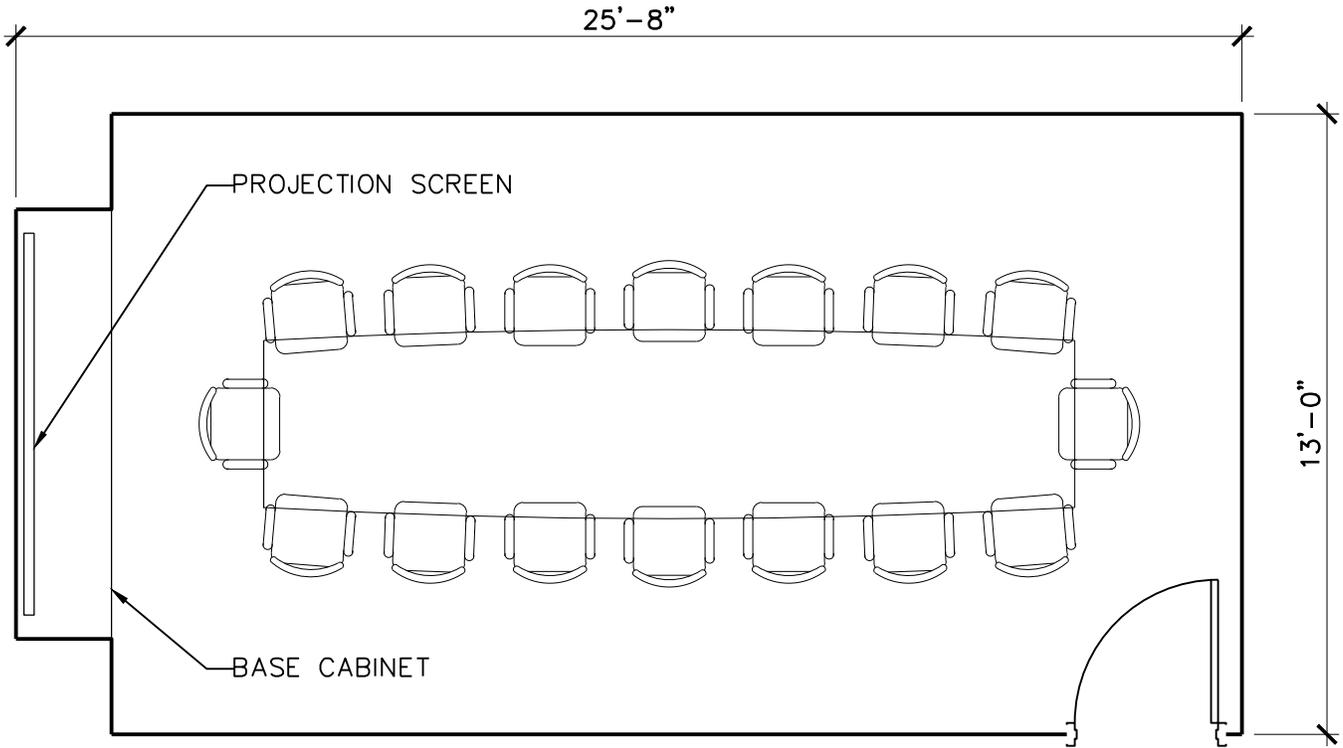
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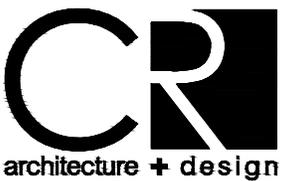
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333 SF
CONFERENCE ROOM

SCALE: 1/4" = 1'-0"



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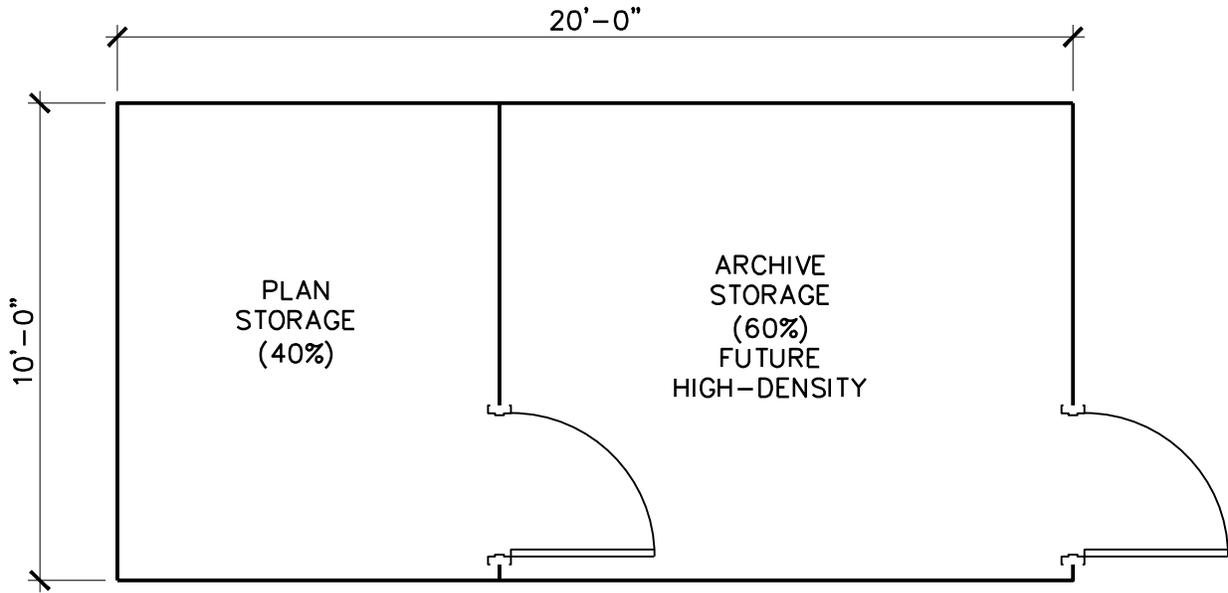
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200 SF
GENERAL STORAGE

SCALE: 1/4" = 1'-0"



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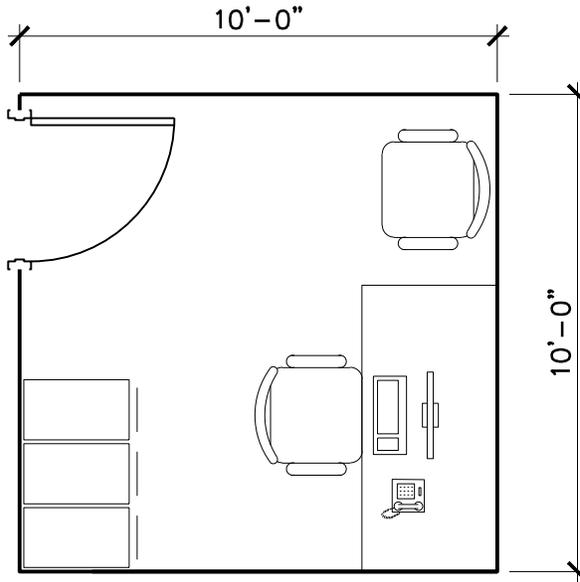
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100 SF
UNION OFFICE

SCALE: 1/4" = 1'-0"



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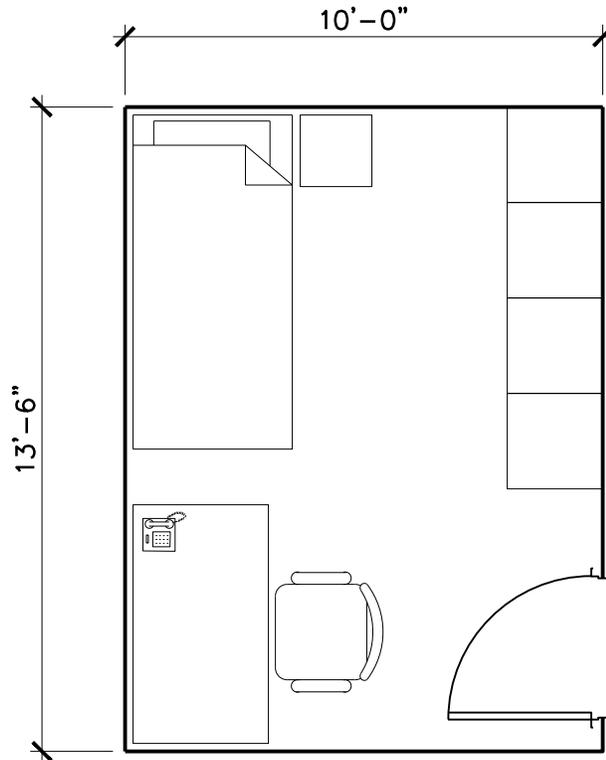
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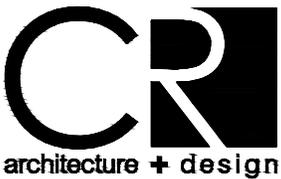
**FIRE DEPARTMENT
LIVING SPACES**



6 INSTANCES
5 CURRENT + 1 FUTURE

135 SF
DORM ROOM

SCALE: 1/4"=1'-0"



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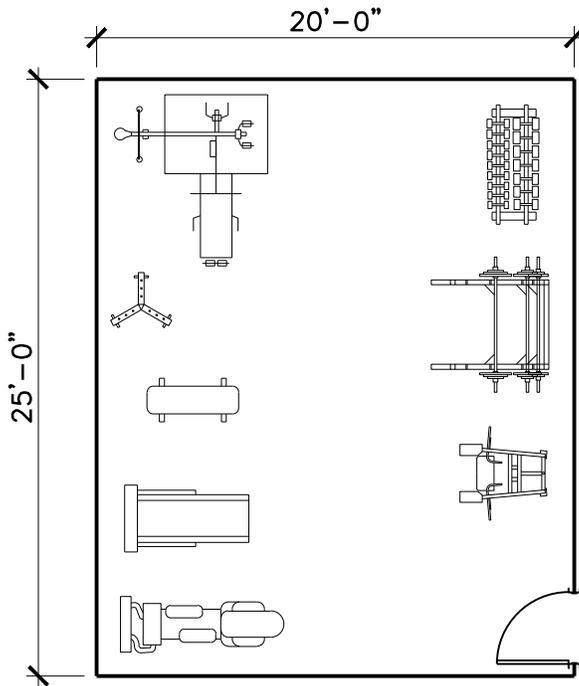
CINCINNATI 600 Vine Street suite 2210 Cincinnati, OH 45202
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500 SF
FITNESS ROOM

SCALE: 1/8" = 1'-0"



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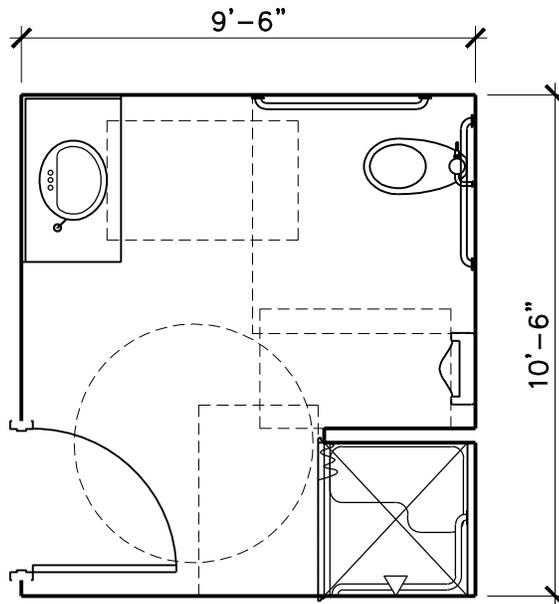
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3 INSTANCES: 2 MALE, 1 FEMALE
 3 x 100 SF = 300 SF

100 SF
RESTROOM/SHOWER ROOM

SCALE: 1/4" = 1'-0"



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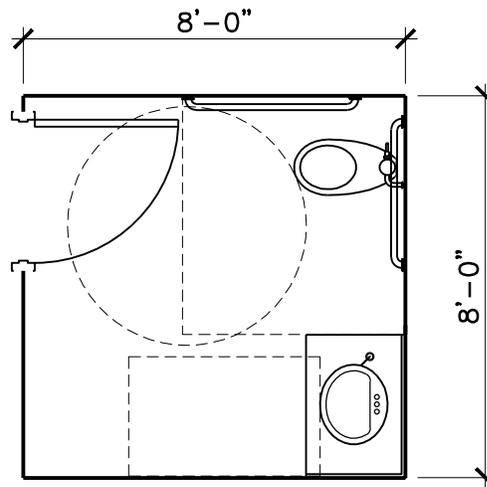
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1 INSTANCE

64 SF
RESTROOM

SCALE: 1/4" = 1' - 0"



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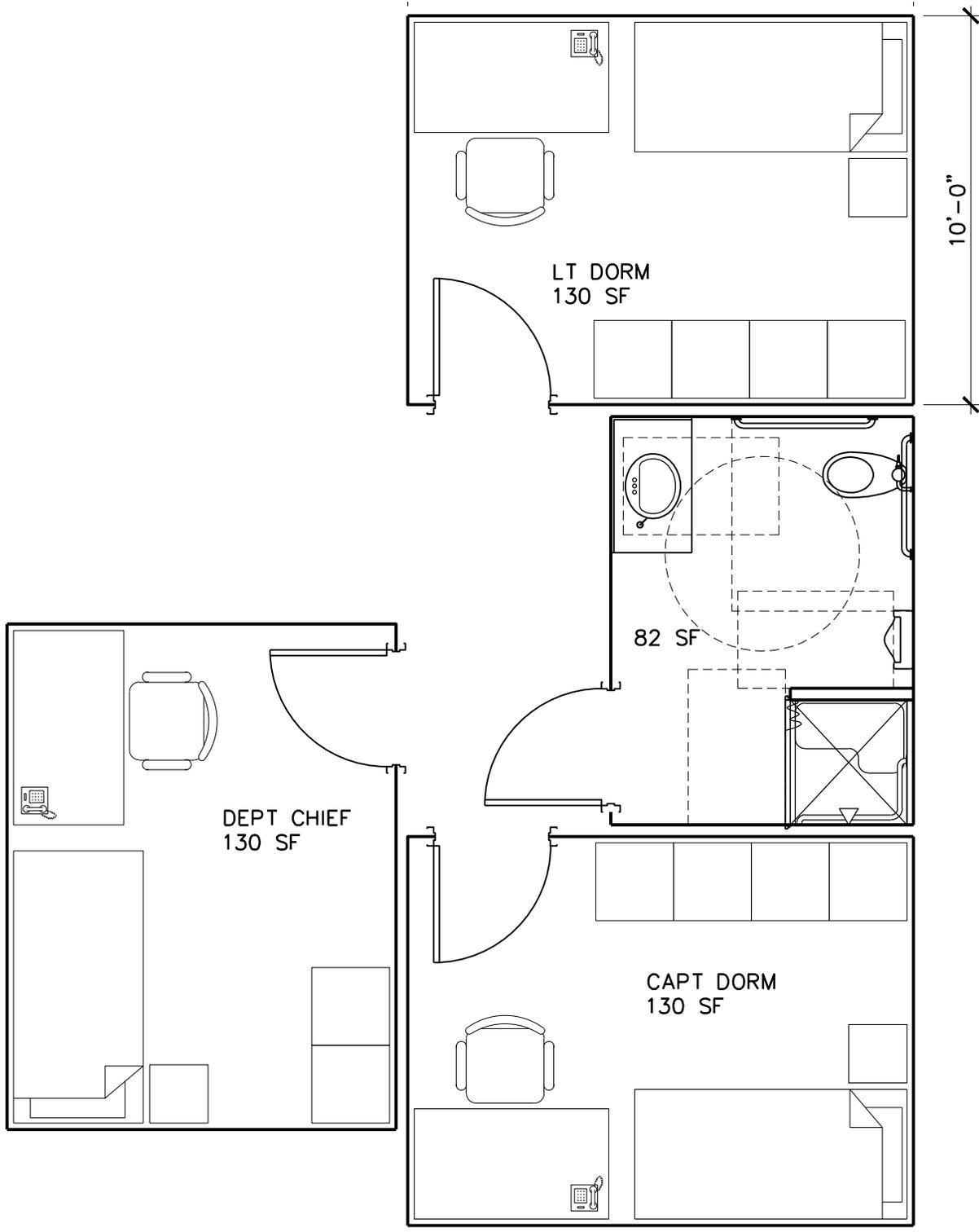
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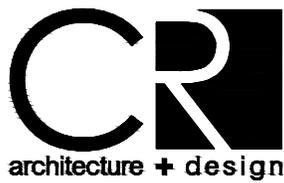
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462 SF
OFFICER DORM ROOMS

SCALE: 1/4" = 1' - 0"



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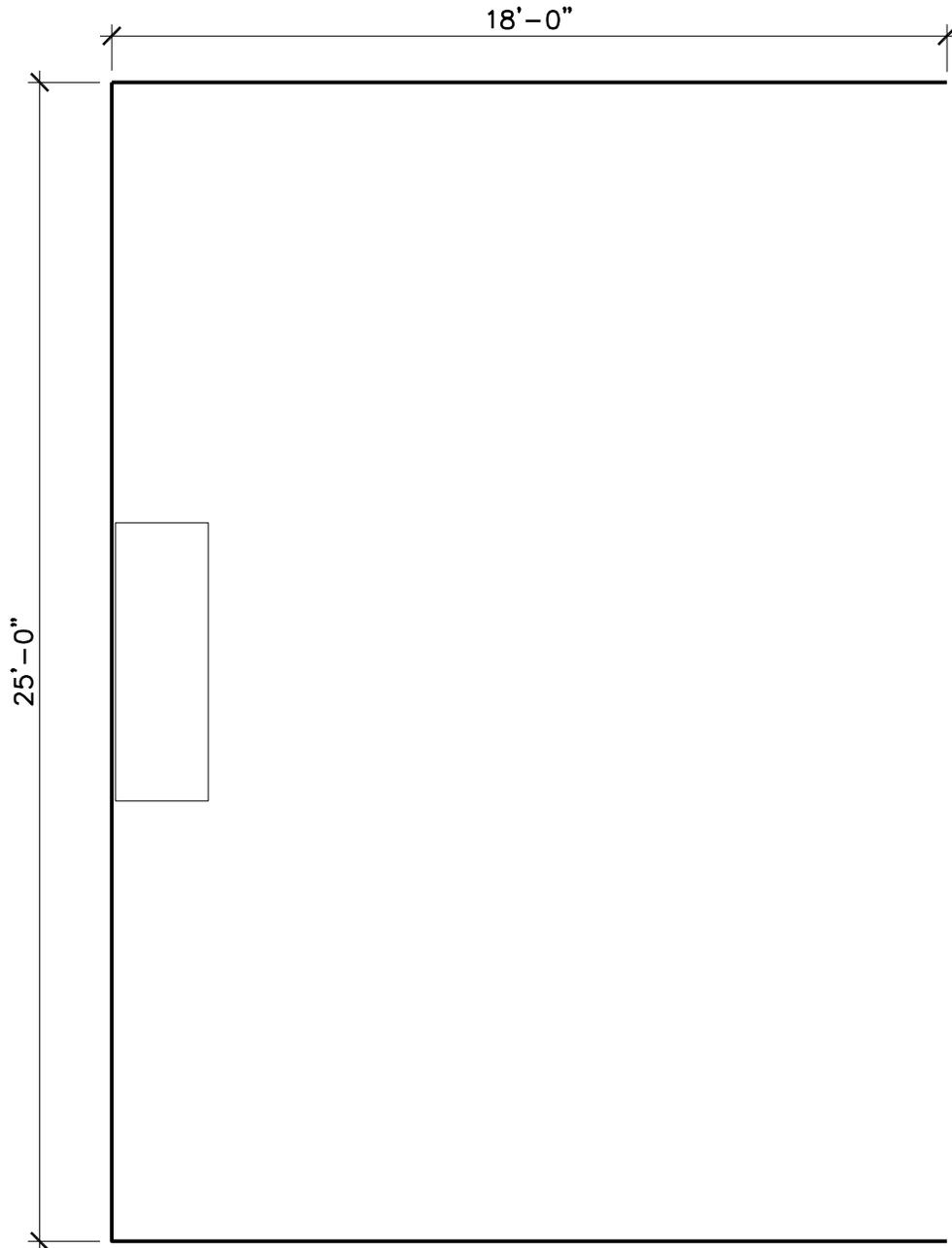
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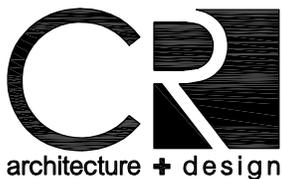
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450 SF
DAY ROOM

SCALE: 1/4" = 1' - 0"



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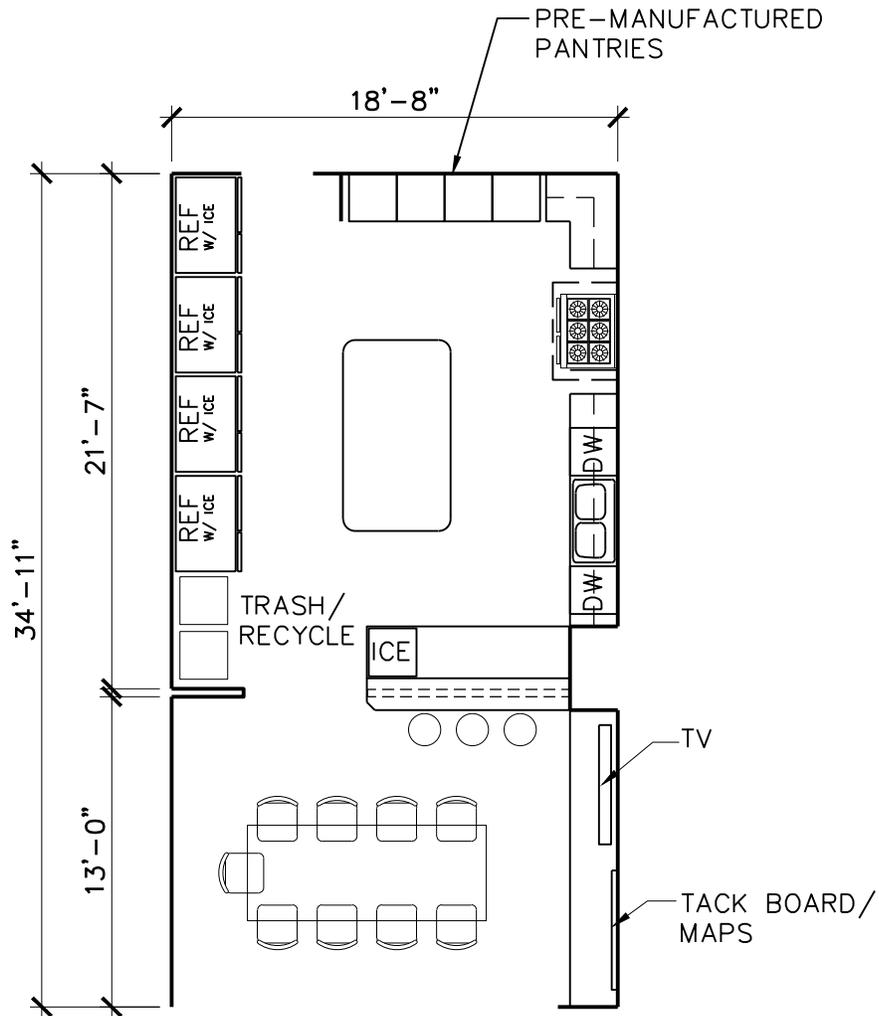
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651 SF - 9 CREW
KITCHEN / DINING
 SCALE: 1/8" = 1'-0"



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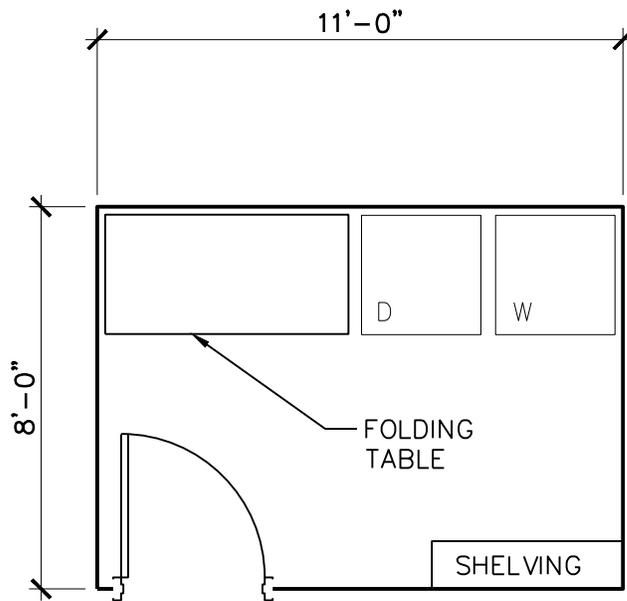
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88 SF
DOMESTIC LAUNDRY

SCALE: 1/4"=1'-0"



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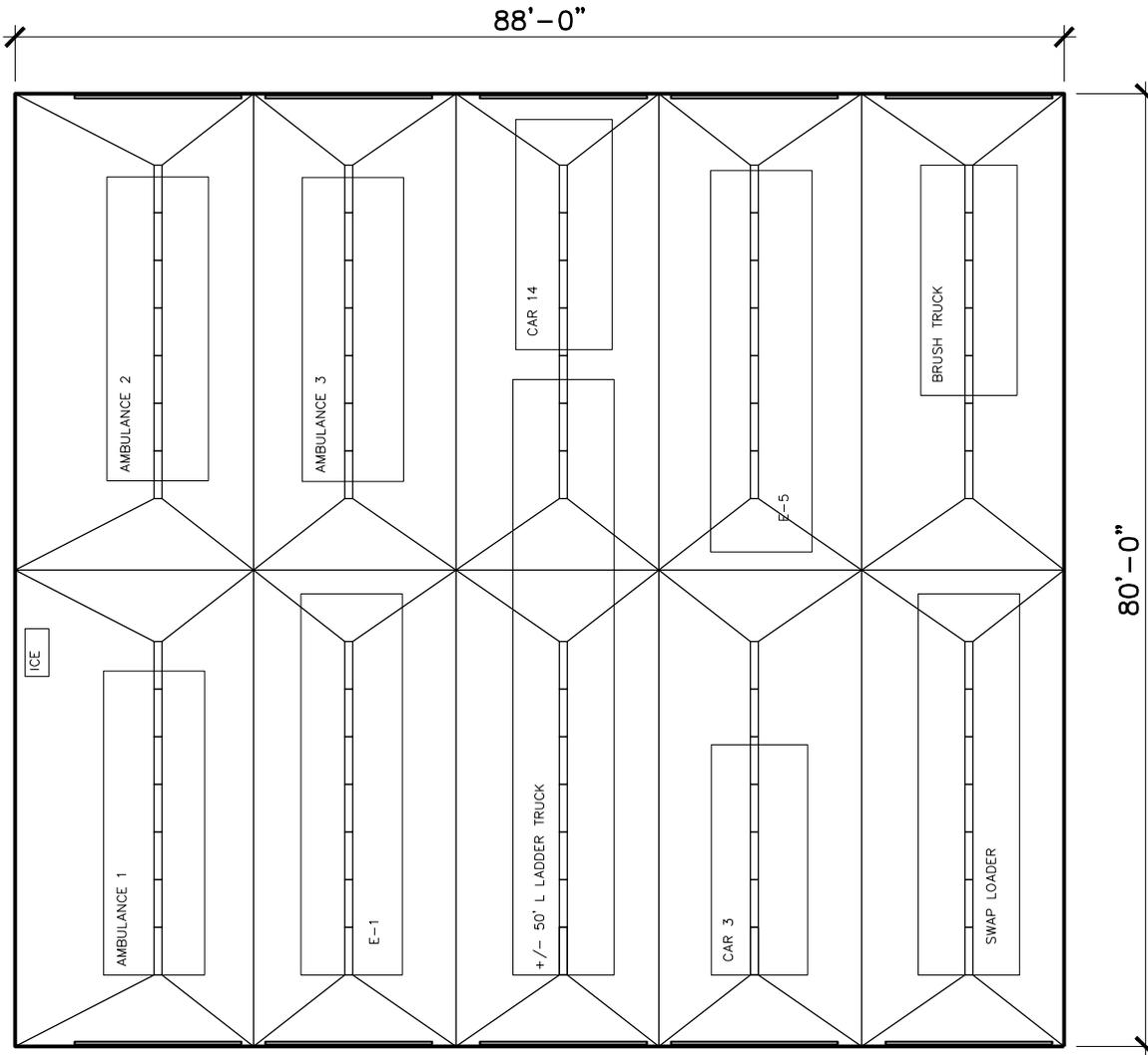
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**FIRE DEPARTMENT
OPERATIONS**



INCLUDES A WASH BAY
 4 BAYS HIGH PRIORITY
 1 BAY MED PRIORITY

5 BAYS - 7040 SF
APPARATUS BAYS

SCALE: 1/16" = 1' - 0"



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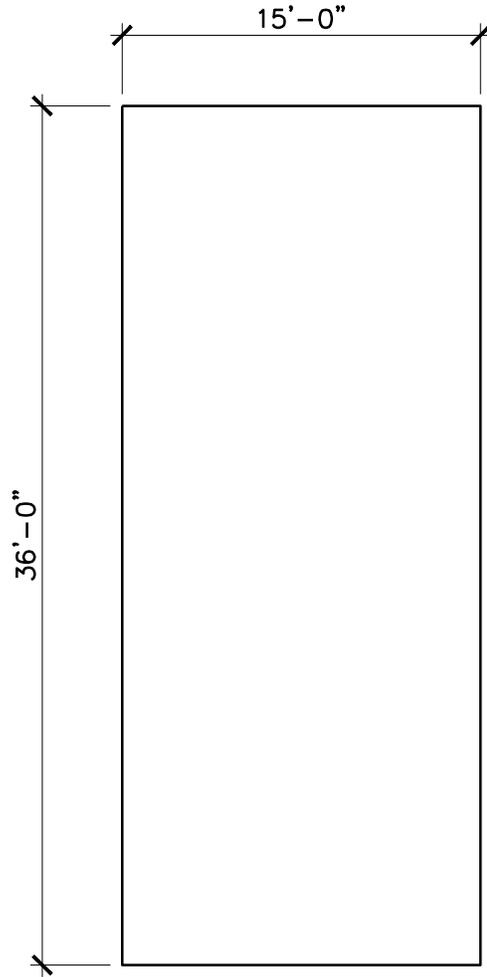
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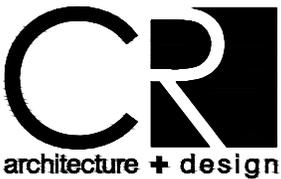
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540 SF
APPARATUS MEZZANINE

SCALE: 1/8" = 1' - 0"



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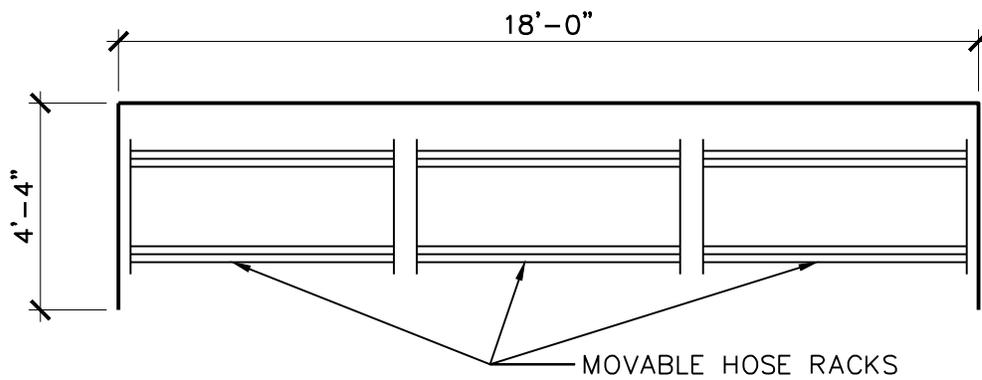
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**FIRE DEPARTMENT
OPERATIONS SUPPORT SPACES**



78 SF
HOSE STORAGE

SCALE: 1/4" = 1'-0"



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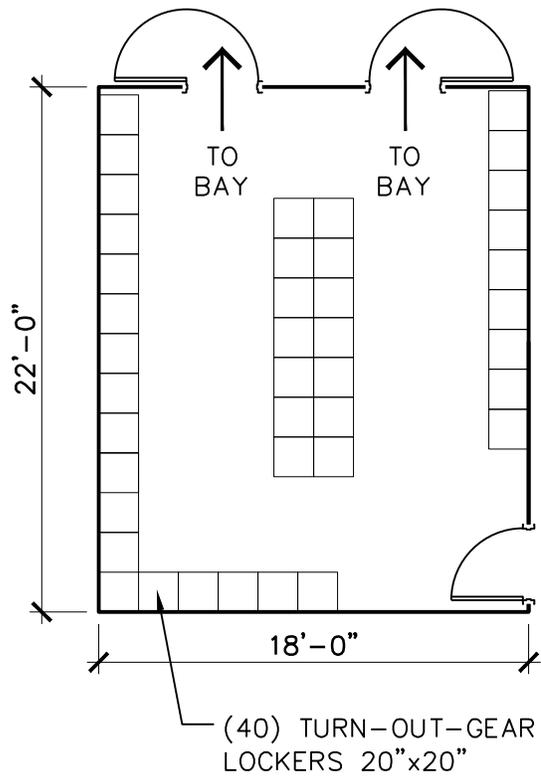
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396 SF (40 LOCKERS)
TURN OUT GEAR

SCALE: 1/8" = 1'-0"



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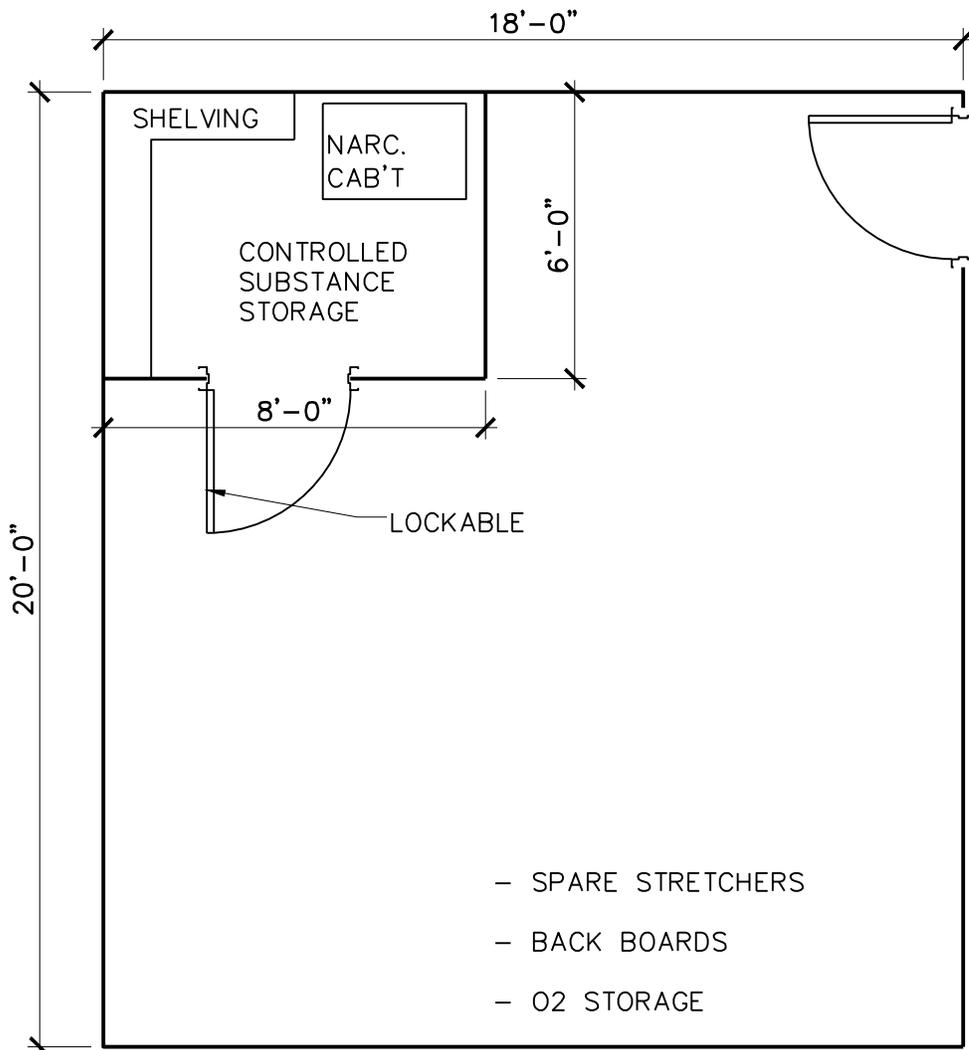
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360 SF
EMS STORAGE

SCALE: 1/4" = 1'-0"



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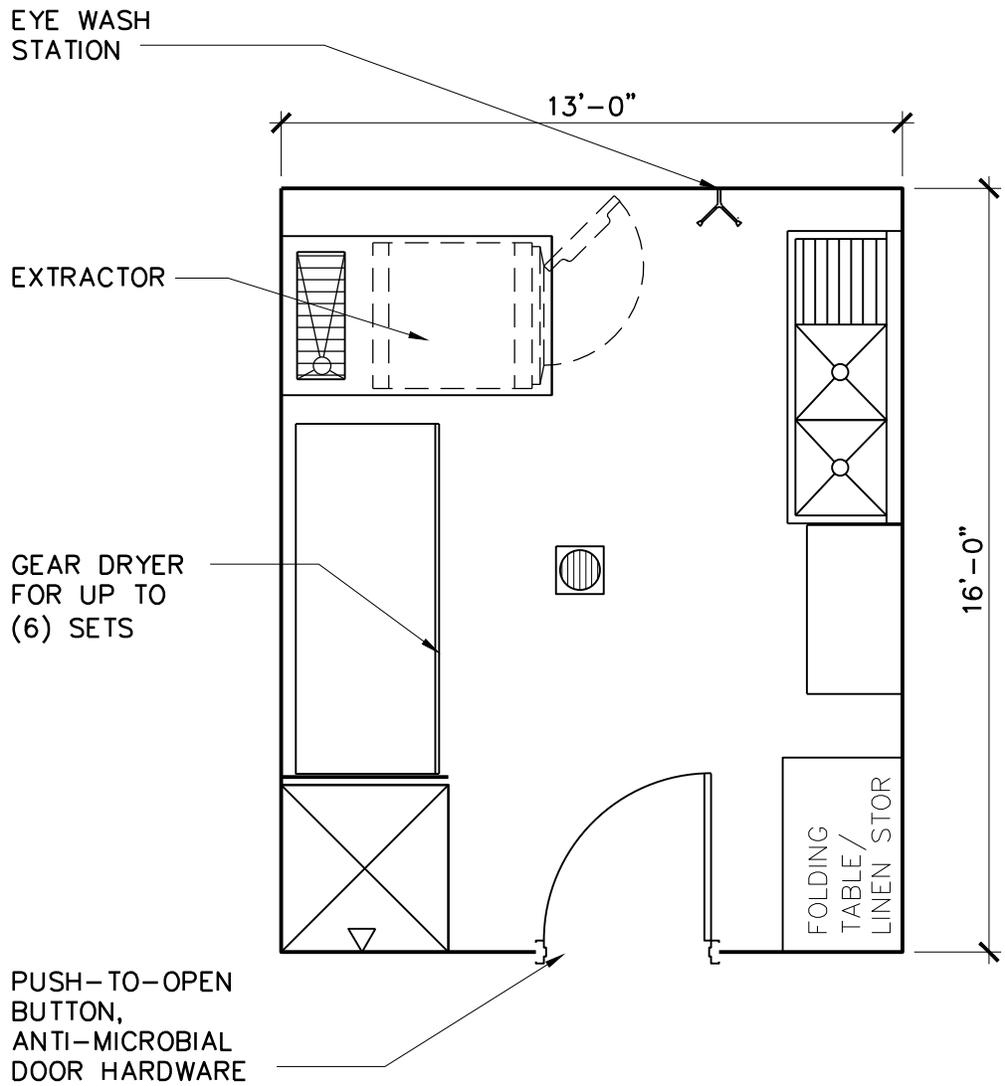
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208 SF
DECONTAMINATION

SCALE: 1/4" = 1'-0"



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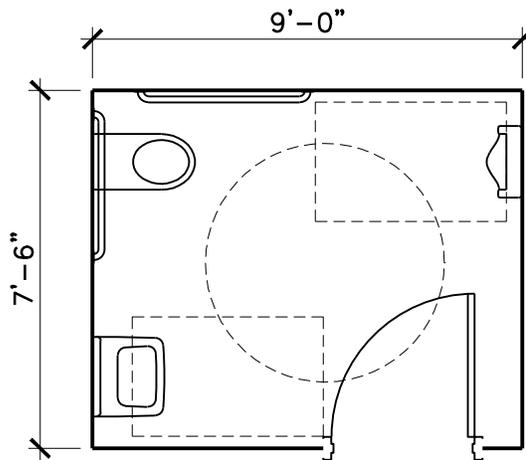
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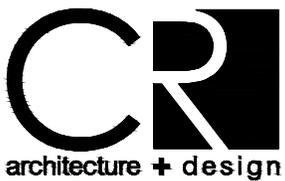
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- ADJACENT TO APPARATUS BAYS
- ADJACENT TO DECONTAMINATION

68 SF
DIRTY RESTROOM

SCALE: 1/4" = 1' - 0"



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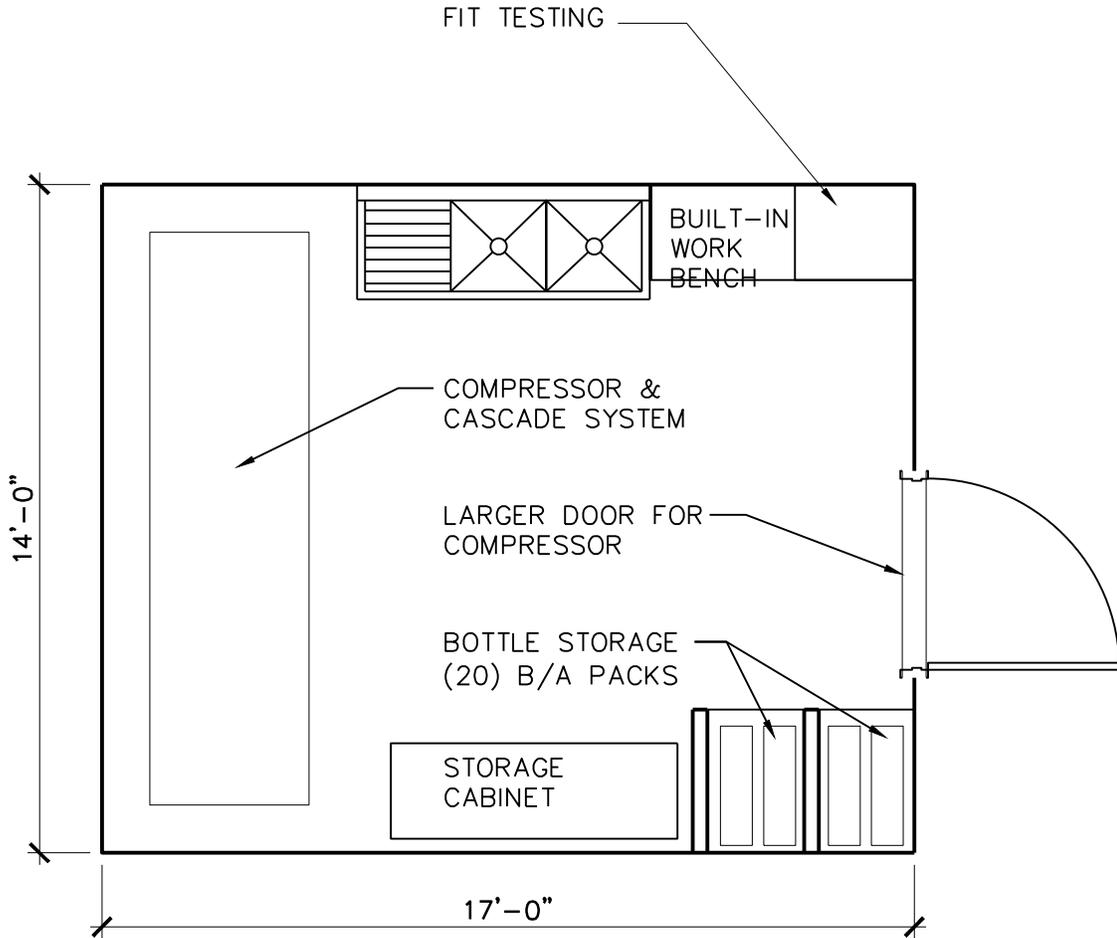
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238 SF
SCBA BOTTLE STORAGE ROOM

SCALE: 1/4" = 1'-0"



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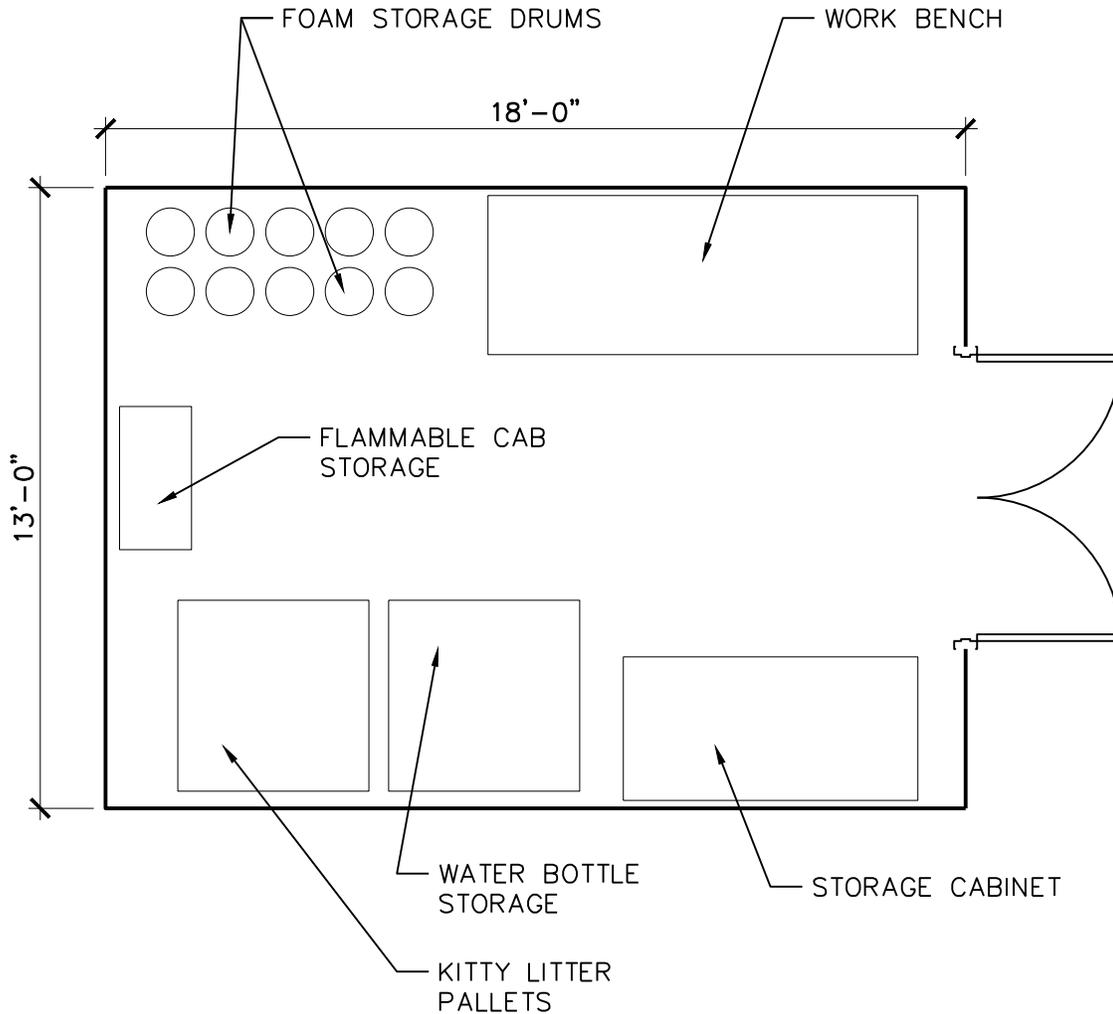
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234 SF
GENERAL STORAGE

SCALE: 1/4" = 1'-0"



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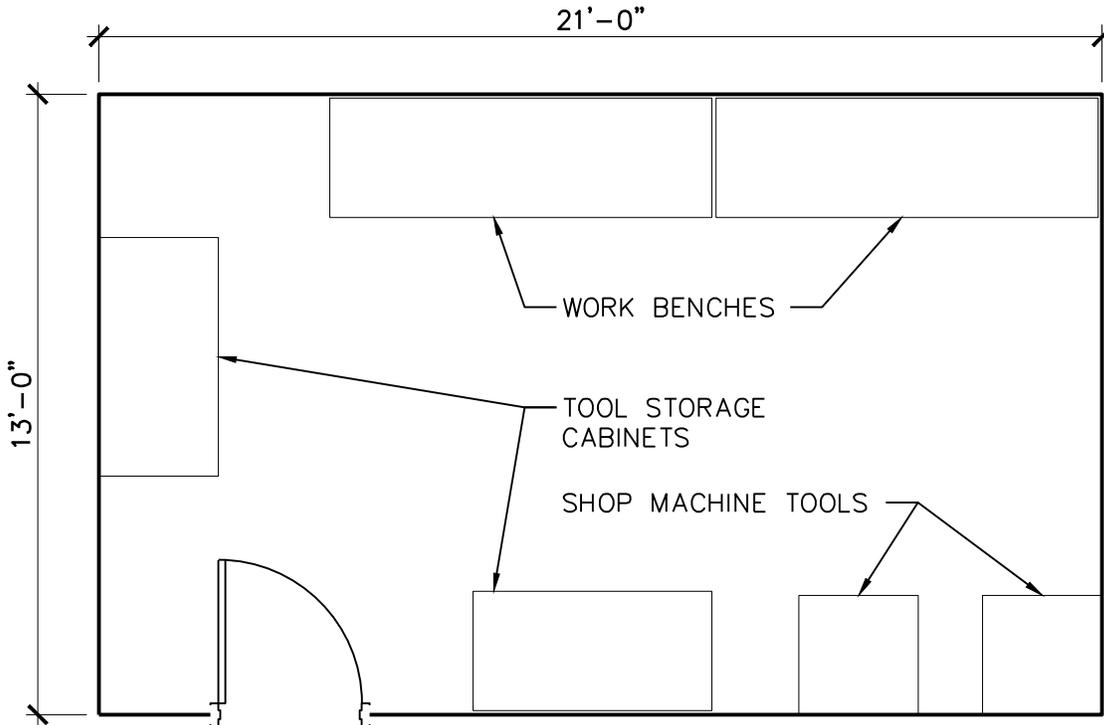
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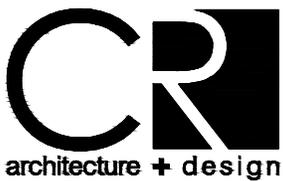
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273 SF
QUARTERMASTER STORAGE

SCALE: 1/4" = 1'-0"



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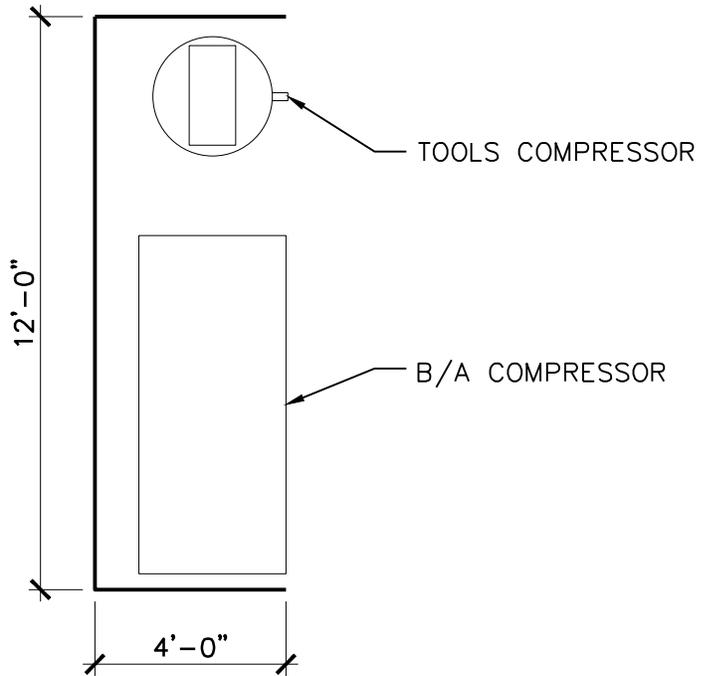
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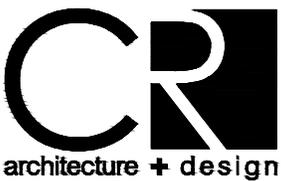
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48 SF
COMPRESSOR ROOM

SCALE: 1/4" = 1'-0"



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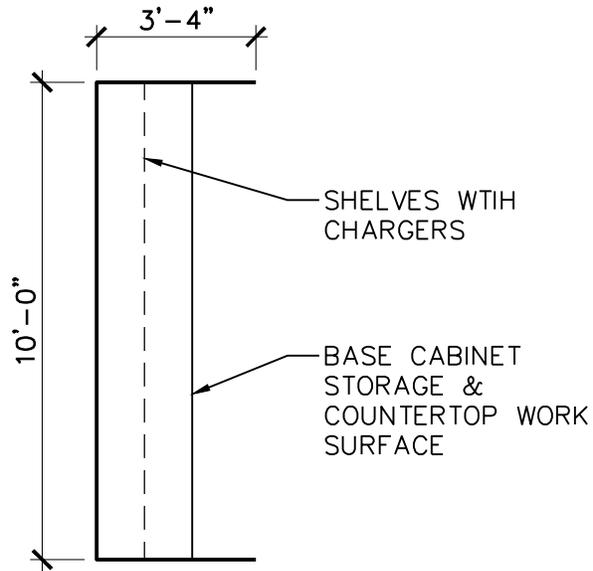
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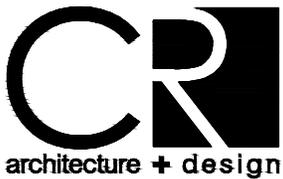
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33 SF
RADIO CHARGING STATION

SCALE: 1/4" = 1'-0"



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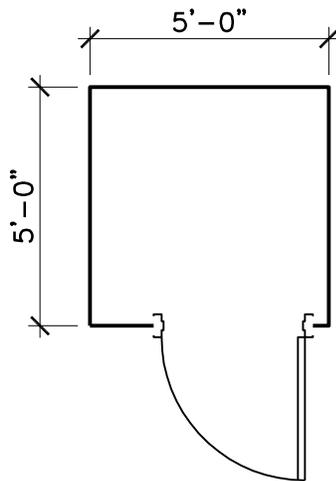
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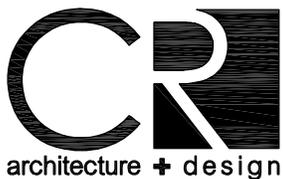
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25 SF
STORAGE

SCALE: 1/4" = 1' - 0"



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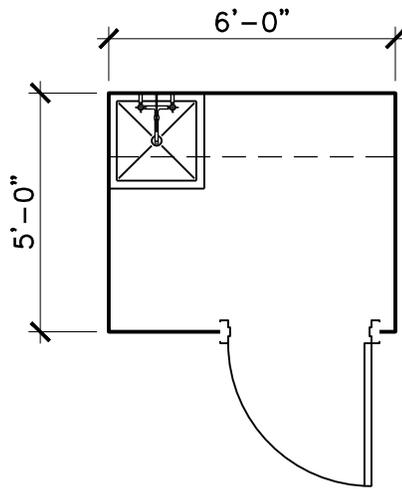
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30 SF
JANITOR CLOSET

SCALE: 1/4" = 1'-0"



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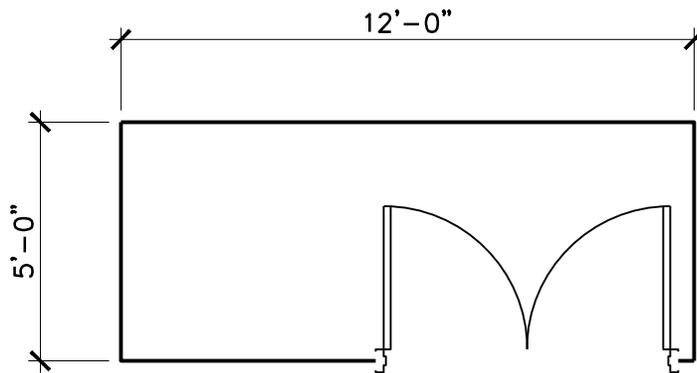
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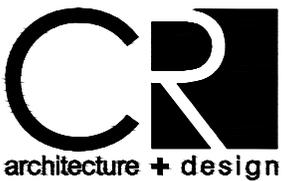
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60 SF
FUEL STORAGE

SCALE: 1/4" = 1'-0"



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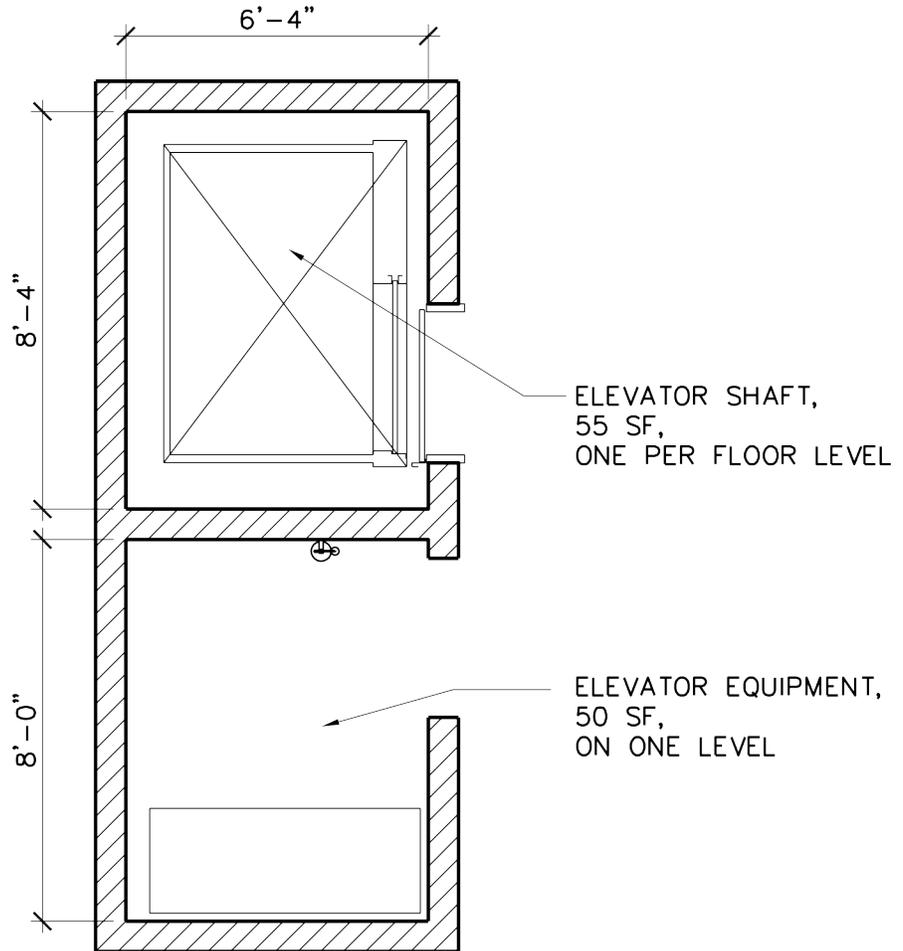
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BUILDING SYSTEMS + CIRCULATION



160 SF
ELEVATOR

SCALE: 1/4" = 1'-0"



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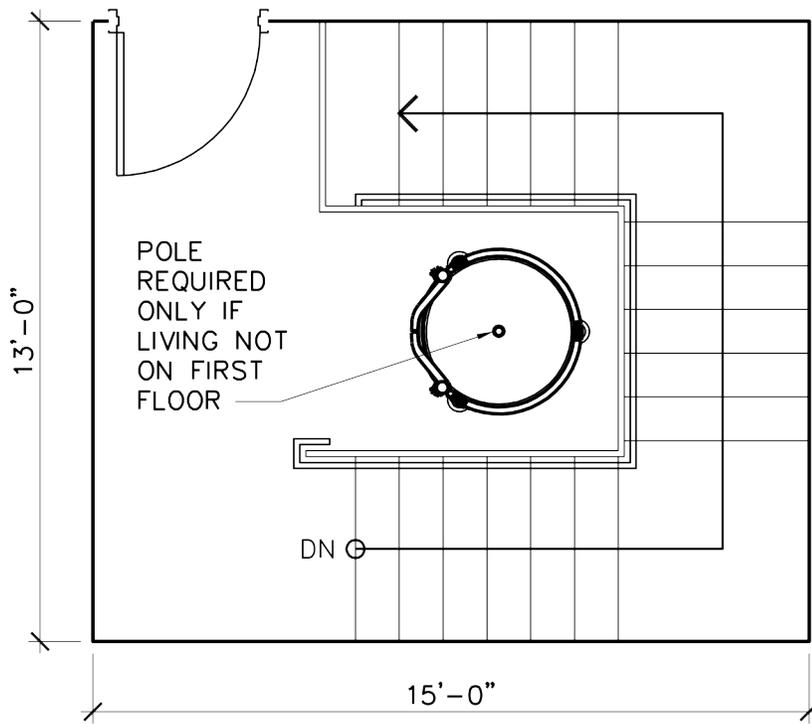
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195 SF / LEVEL
STAIR W/ FIRE POLE

SCALE: 1/4" = 1'-0"



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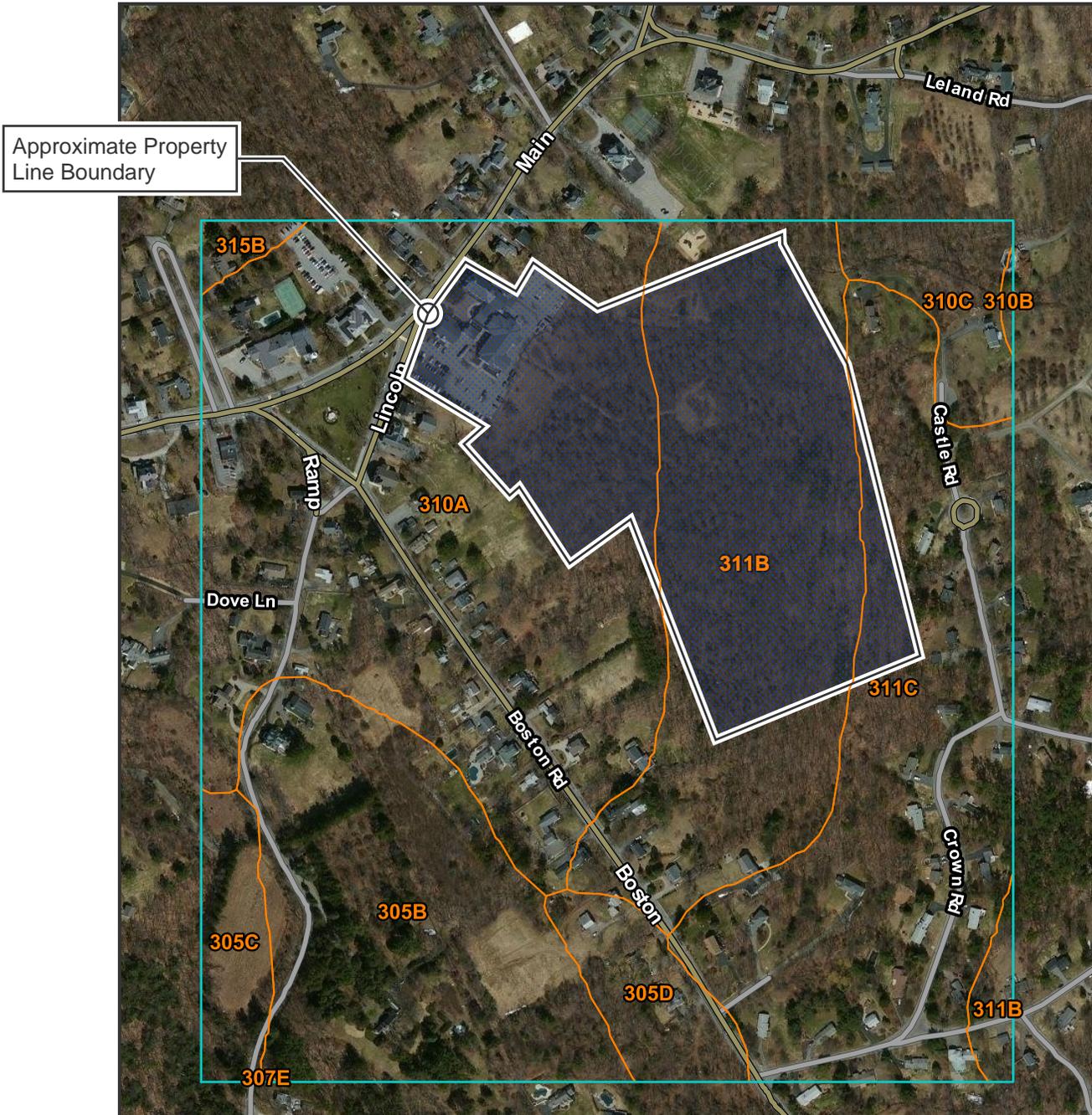
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Appendix B

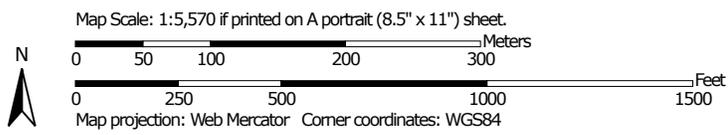
Soil Map—Middlesex County, Massachusetts
(Existing Site - Preliminary Soils Analysis)



Approximate Property Line Boundary

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Soil surveys can be used for general farm, local, and wider area planning. Onsite investigation is needed in some cases, such as soil quality assessments and certain conservation and engineering applications.



Map Unit Legend

Middlesex County, Massachusetts (MA017)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
305B	Paxton fine sandy loam, 3 to 8 percent slopes	20.1	14.8%
305C	Paxton fine sandy loam, 8 to 15 percent slopes	3.5	2.6%
305D	Paxton fine sandy loam, 15 to 25 percent slopes	4.1	3.0%
307E	Paxton fine sandy loam, 25 to 35 percent slopes, extremely stony	0.0	0.0%
310A	Woodbridge fine sandy loam, 0 to 3 percent slopes	47.5	35.0%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	0.2	0.1%
310C	Woodbridge fine sandy loam, 8 to 15 percent slopes	4.2	3.1%
311B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	27.4	20.2%
311C	Woodbridge fine sandy loam, 8 to 15 percent slopes, very stony	27.7	20.4%
315B	Scituate fine sandy loam, 3 to 8 percent slopes	0.8	0.6%
Totals for Area of Interest		135.7	100.0%

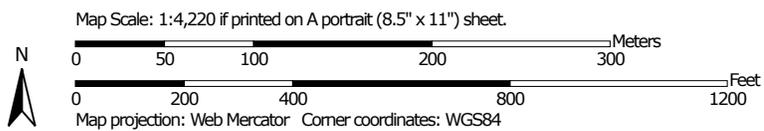
Soil Map—Middlesex County, Massachusetts
(Boston Road Site - Preliminary Soils Analysis)



Approximate Property Line Boundary

Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

Soil surveys can be used for general farm, local, and wider area planning. Onsite investigation is needed in some cases, such as soil quality assessments and certain conservation and engineering applications.



Map Unit Legend

Middlesex County, Massachusetts (MA017)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
51A	Swansea muck, 0 to 1 percent slopes	0.1	0.1%
52A	Freetown muck, 0 to 1 percent slopes	7.0	7.7%
103C	Charlton-Hollis-Rock outcrop complex, 8 to 15 percent slopes	8.2	9.0%
103D	Charlton-Hollis-Rock outcrop complex, 15 to 25 percent slopes	2.8	3.0%
253A	Hinckley loamy sand, 0 to 3 percent slopes	12.3	13.5%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	3.8	4.2%
305D	Paxton fine sandy loam, 15 to 25 percent slopes	10.7	11.8%
307E	Paxton fine sandy loam, 25 to 35 percent slopes, extremely stony	8.1	8.9%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	16.3	17.9%
311B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	5.1	5.6%
311C	Woodbridge fine sandy loam, 8 to 15 percent slopes, very stony	13.5	14.8%
654	Udorthents, loamy	3.2	3.5%
Totals for Area of Interest		91.0	100.0%

MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)	
Soils		Soil Map Unit Polygons	
		Soil Map Unit Lines	
		Soil Map Unit Points	
Special Point Features		Special Line Features	
Water Features		Streams and Canals	
Transportation		Rails	
		Interstate Highways	
		US Routes	
		Major Roads	
		Local Roads	
Background		Aerial Photography	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

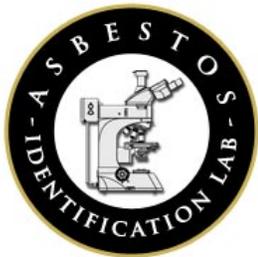
Soil Survey Area: Middlesex County, Massachusetts
Survey Area Data: Version 14, Sep 19, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 30, 2011—May 1, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Appendix C



Asbestos Identification Laboratory

165 New Boston St., Ste 271
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 2554



October 31, 2014

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Number:

Project Name: Westford Fire, Westford, MA

Date Sampled: 2014-10-29

Work Received: 2014-10-29

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project .

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations Department of Health Certification: AAL-121

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

Ammar Dieb
 Universal Environmental Consultants
 12 Brewster Road
 Framingham, MA 01702

Project Number:
Project Name: Westford Fire, Westford, MA

Date Sampled: 2014-10-29
Work Received: 2014-10-29

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
1	2x2 SAT-I	2nd FL	multi	Mineral Wool 30 Cellulose 50 Non-Fibrous 20	None Detected
27318					
2	2x2 SAT-I	Dispatch	multi	Mineral Wool 30 Cellulose 50 Non-Fibrous 20	None Detected
27319					
3	Joint Compound (JC)	2nd FL Wall	white	Non-Fibrous 98	Detected Chrysotile 2
27320					
4	JC	1st FL Bathrm Wall	white	Non-Fibrous 98	Detected Chrysotile 2
27321					
5	JC	Stairs Up Bathrm Side-Wall	white	Non-Fibrous 98	Detected Chrysotile 2
27322					
6	JC	Stairs Up Rear- Wall	white	Non-Fibrous 98	Detected Chrysotile 2
27323					
7	JC	Wall by Roll-Up Door- Rear Stairs Up	white	Non-Fibrous 95	Detected Chrysotile 5
27324					
8	E Off FG	Space Under Rear Stairs Up	white	Mineral Wool 40 Non-Fibrous 60	None Detected
27325					
9	E Off FG	Space Under Rear Stairs Up	white	Mineral Wool 40 Non-Fibrous 60	None Detected
27326					
10	Black in FG Clg Batt	Dispatch	multi	Mineral Wool 10 Cellulose 40 Non-Fibrous 50	None Detected
27327					
11	Black in FG Wall Batt	1st FL Bathrm	multi	Mineral Wool 20 Cellulose 40 Non-Fibrous 40	None Detected
27328					
12	New 12" Blue VT		blue	Non-Fibrous 100	None Detected
27329					
13	New 12" Blue VT		blue	Non-Fibrous 100	None Detected
27330					
14	VT? Under Plywood Under New 12" Blue VT		white	Non-Fibrous 100	None Detected
27331					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
15	Older 12" VT Under Carpet	2nd Floor	tan	Non-Fibrous 100	None Detected
27332					
16	Brown Mastic #15	2nd Floor	tan	Non-Fibrous 100	None Detected
27333					
17	Older 12" VT Under Carpet	2nd Floor	tan	Non-Fibrous 100	None Detected
27334					
18	Brown Mastic #17	2nd Floor	tan	Non-Fibrous 100	None Detected
27335					
19	Older Lino Under Carpet	1st FL Dispatch	tan	Cellulose Non-Fibrous 5	Detected 70 Chrysotile 25
27336					
20	Carpet Glue #19	1st FL Dispatch	yellow	Non-Fibrous 100	None Detected
27337					
21	VT Under New Lino	1st FL Bathroom	tan	Non-Fibrous 100	None Detected
27338					
22	Old Lino Under #21	1st FL Bathroom	tan	Non-Fibrous 65	Detected Chrysotile 35
27339					
23	Old Lino Under New Lino	2nd FL Bathroom	tan	Cellulose Non-Fibrous 5	Detected 70 Chrysotile 25
27340					
24	New Grey VT	Lobby	gray	Non-Fibrous 100	None Detected
27341					
25	Hard Grey GL	Exterior Window @ 2nd FL	gray	Non-Fibrous 98	Detected Chrysotile 2
27342					
26	Interior Soft GL	Exterior Window @ 2nd FL	multi	Non-Fibrous 100	None Detected
27343					
27	Interior Hard Grey GL	Exterior Window @ 2nd FL	gray	Non-Fibrous 98	Detected Chrysotile 2
27344					
28	Roofing Product ?? Debris	Behind Htg Unit, @ Rear Stairs	black	Cellulose Non-Fibrous 60	None Detected 40
27345					
29	Roof Shingle	Exterior	black	Fiberglass Non-Fibrous 5	None Detected 95
27346					
30	Roof Shingle	Exterior	black	Fiberglass Non-Fibrous 5	None Detected 95
27347					

Friday 31 October
Analyzed by:

Michael Thanning

End of Report
Batch: 2554

Page 2 of 2

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: WESTFORD, MA Building Name WESTFORD 1-112

Sample	Result	Description of Material	Sample Location
1		2-2 SAT-T	2 nd FL
2		2-2 SAT-T	Dispatch
3		Joint Compound (JC)	2 nd FL wall
4		JC	1 st FL bathroom wall
5		JC	stairs up bathroom side - wall
6		JC	stairs up rear - wall
7		JC	wall by call-up door - stairs up
8		ⓔ OFF FL	space under rear stairs up
9		ⓔ OFF FL	" " " "
10		Black in FG cly batt	Dispatch
11		Black in FG wall batt	1 st FL bathroom
12		new 12" Blue vt	
13		new 12" Blue vt	
14		vt ? under plywood under new 12" Blue vt	
15		older 12" vt under carpet	2 nd Floor
16		Brown mastic #15	} } }
17		older 12" vt under carpet	
18		Brown mastic #17	
19		older Gino under carpet	1 st FL Dispatch
20		carpet glue #19	" " "

Reported By: Lemuel Bunn Date: 10/29/14 Due Date: 48 hr
 Received By: Olinham Date: 11/20/14

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

1506 Providence Highway - Suite 30
Norwood, MA 02062-4647

Voice: 781.255.5554
Fax: 781.255.5535
www.lordenv.com

PHASE I-ENVIRONMENTAL SITE ASSESSMENT

**51 Main Street
Westford, Massachusetts**

Prepared for:

**Mr. Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702-6218**

Prepared by:

**Lord Associates, Inc.
1506 Providence Highway, Suite 30
Norwood, Massachusetts 02062**

Project # 2185

November 14, 2014

Lord Associates, Inc.

Environmental Consulting & Licensed Site Professional Services

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November 14, 2014

Mr. Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702-6218

**RE: Phase I Environmental Site Assessment
51 Main Street
Westford, Massachusetts**

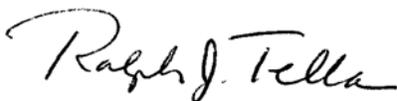
Dear Mr. Dieb:

Lord Associates, Inc. has completed a Phase I Environmental Site Assessment of the referenced property (the "Site"). Environmental investigations were completed with consideration to standard industry practice, the ASTM E-1527 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", applicable regulations as defined by Chapter 21E of the Massachusetts General Laws, and the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The purpose of this assessment was to identify "Recognized Environmental Conditions" as defined in ASTM E-1527-13, and to determine if additional investigation is warranted.

This assessment has identified one potential Recognized Environmental Condition (REC) in connection with the property 51 Main Street in Westford, Massachusetts. The lack of soil testing documentation from the removal of the 550-gallon diesel UST.

Please refer to the attached report for specific details and findings of our assessment. We appreciate the opportunity to have provided our professional environmental consulting and analytical services.

Sincerely,
LORD ASSOCIATES, INC.



Ralph Tella, CHMM, LSP
President



Andrea J. Lang
Project Manager

Enc.: Phase I ESA

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Appendix a – Figures and Photographs

Appendix b - Database Report

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1.0 INTRODUCTION

1.1 Purpose

Lord Associates, Inc. (LAI) has completed a Phase I Environmental Site Assessment for 51 Main Street Westford, Massachusetts, Middlesex County (the “Site”). The purpose of this assessment was to identify “Recognized Environmental Conditions” as defined in ASTM standard E1527-13 (the Standard), and to determine if additional investigation is warranted.

Recognized Environmental Conditions are defined as the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term Recognized Environmental Conditions is not intended to include *de minimis* conditions which generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of a notification and/or enforcement action if brought to the attention of appropriate governmental agencies.

The Phase I consisted of a Site reconnaissance and an assessment of the Site and surrounding properties for visual and/or olfactory evidence of the use, storage, and/or release of oil and/or hazardous material. The Phase I also included a review of federal, state, and local agency files regarding the history of the Site and surrounding area relative to the use, storage and/or release of oil and/or hazardous material.

Please note that an investigation for the presence of mold, asbestos and PCBs in building materials, lead-based paint, indoor air quality, or regulatory compliance is beyond the scope of work described by ASTM E 1527-13, therefore LAI did not explore those conditions.

1.2 Significant Assumptions

Factual information regarding operations, conditions, and other data provided by the Client, site contacts, third parties, and governmental agencies are assumed to be correct and complete.

1.3 Special Terms and Conditions

The Phase I ESA was conducted by LAI on behalf of the client consistent with the agreed upon Scope of Work and LAI Standard Terms and Conditions. No other special terms and conditions were established in connection with these services.

2.0 SCOPE OF SERVICES

This assessment was performed following standard industry practice and with consideration to the ASTM E-1527-13 site assessment standard entitled “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The investigation included completion of the following tasks:

1. A field investigation was performed including a visual surficial inspection of the Site and abutting properties; and
2. The following agencies were contacted to inquire of past ownership, complaints, or violations concerning environmental issues at the Site and vicinity.
 - The Massachusetts Department of Environmental Protection (MADEP)
 - The Westford Tax Assessor’s Office
 - The Westford Town Clerk’s Office
 - The Westford Health Department
 - The Westford Building Department
 - The Westford Water Department
 - The Westford Conservation Commission
 - The Westford Fire Prevention Office
 - Environmental Risk Information Services (ERIS)
 - Sanborn Fire Insurance Maps

3.0 SITE DESCRIPTION

3.1 Site Location and Parcel Legal Description

Information provided indicates that the Site consists of the Westford Fire Department Headquarters building with an approximate footprint of 3,840 square feet, located on a single lot along with the Westford Police Complex and the emergency generator building. The lot totals approximately 30 acres of land located on the east side of Main Street in Westford, Massachusetts. However, for the purpose of this assessment the Fire Department building is the only structure on the lot that is being considered. A Site Location Map is included as **Figure 1**. The Site is designated as Lot 47 on Assessor’s Map 59 with the Westford Tax Assessor’s Office. A Plot Plan is included as **Figure 2** and a Site Plan depicting pertinent Site features is included as **Figure 3**.

Information provided indicates the Site longitude and latitude are approximately -71.437522° west and 42.582177° north, respectively. Universal Transverse Mercator (UTM) coordinates are approximately 4,717,297 meters north by 299,975 meters east.

3.2 Site and Vicinity General Characteristics

The Site is located on the east side of Main Street in Westford, Massachusetts. The Site is occupied by one two-story fire department building constructed on-slab. The building

comprises the entire Site. Information provided by the Westford Assessor's Office indicates the building was constructed in 1975.

3.3 Current Property Use

The Site property is occupied by the Westford Fire Department Headquarters, which consists of a two-story fire department building constructed on-slab.

3.4 Description of Improvements

The Site is improved with one two-story fire department building constructed on-slab. The building comprises roughly 100% of the total surface area of the Site.

The building comprises the entire Site. The lot is also occupied by the Westford Police Complex and the emergency generator building which services the fire and police department buildings. There are no pits, ponds, lagoons or surface water bodies located at the Site. A detailed Site description is presented in **Section 4.0**.

3.4.1 Wastewater

Wastewater generated on-Site is discharged to the municipal sewer system which is comprised of a waste water treatment plant located at the public high school. No information pertaining to storm water handling and/or management was encountered during this assessment. No oil/water separators or storm drains were observed in the buildings. Floor drains were observed in the boiler room located on the northeast corner of the building.

3.4.2 Water Supply

Water is supplied by the City of Westford; the connection date was not available through files reviewed.

3.4.3 Wells

No potable, irrigation, injection, dry, groundwater monitoring or abandoned wells were observed or identified from the interviews or records reviewed.

3.4.4 Heating/Cooling System

Heat for the majority of the building is provided by natural gas fired boilers. Electric powered cooling and heat pump units service the office areas. Hot water is provided by a natural gas-fired water heater.

3.4.5 Solid Waste Disposal

Solid waste dumpsters utilized by the Site were observed near the police building. Solid waste is disposed of by a contacted waste hauler. There were no areas of solid waste disposal, mounds or depressions, or areas apparently filled or graded by non-natural causes suggesting solid waste disposal observed.

3.4.6 Storage Tanks

According to the Fire Department records one 550-gallon diesel underground fuel oil tank (UST) was removed from the east side of the Site on July 23, 1997. Information in the file indicated that no contamination was identified during the removal activities. However, no soil testing results were available.

The Site also contains one 275-gallon diesel aboveground fuel storage tank (AST) used to fuel the fire engines. The AST was observed in the garage area; no staining was observed in the area surrounding the tank. One 275-gallon waste oil AST was observed in room on the exterior of the building. Minor staining was observed on the concrete in the vicinity of the tank. The waste oil tank is used for the collection of used oil from the community.

One 275-gallon No.2 fuel oil AST was formerly located at the Site. The tank was removed on September 29, 2009 during the conversion of the heating system to natural gas.

3.4.7 Transformers, Hydraulic Equipment and Other Potential Evidence of the Potential Use of Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) can be found in hydraulic-oil filled electrical equipment (such as motors and pumps), capacitors or transformers, building materials and fluorescent light ballasts manufactured prior to July 2, 1979.

LAI observed fluorescent light fixtures throughout the Site. The age of the fixtures could not be determined. However, it is not likely that the light ballasts were manufactured prior to 1979, as the average life span for the fluorescent fixtures is less than 15 years. Additionally, any light ballast manufactured after 1979 must be labeled "No PCB". Note that electric light ballasts that contained PCBs had less than 1.5 ounces of PCB. The reportable quantity requiring notification to the Massachusetts Department of Environmental Protection of a release is one pound. Therefore the risk presented by PCB-containing ballasts is relatively low. Sampling for building materials is beyond the scope of ASTM E-1527.

No other evidence of the potential use of polychlorinated biphenyls (PCBs) was observed on the Site during the inspections.

3.5 Current Uses of Adjoining Properties

Residential and municipal properties surround the Site. No bulk fuel storage was observed on adjacent properties. The table below summarizes current abutting land usage.

Table 1
Area Land Usage

Usage	Orientation
Westford Town Hall	North
Municipal parking lot and residential homes	South
Westport Police Complex	East
Residential homes	West

4.0 USER PROVIDED INFORMATION

A summary of user provided information is provided below.

4.1 User Questionnaire

A User Questionnaire was provided to the user (Client) to assist the user and LAI in gathering information from the user that may be material to identifying RECs. LAI did not receive a response to the User Questionnaire that was provided to the user. Furthermore, the user did not provide any of the information requested in the questionnaire and required by Section 6 of the ASTM Standard E 1527-13. The lack of or inability to obtain this information represents a data gap. However, based on the findings of this report, the absence of this information is not considered a *significant* data gap.

4.2 Title Records

LAI did not review the property title.

4.3 Environmental Liens, Activity and Use Limitations

The owner has no knowledge of environmental liens, and the agency check revealed no listing for an Activity and Use Limitation in connection with the Site.

4.4 Specialized Knowledge

No specialized knowledge of Recognized Environmental Conditions was provided to LAI by the owner or client.

4.5 Commonly Known or Reasonably Ascertainable Information

No commonly known or reasonably ascertainable information regarding Recognized Environmental Conditions was provided to LAI by the owner or client.

4.6 Valuation Reduction for Environmental Issues

No information regarding the sale price of the Site in comparison to the expected value of the property was provided to LAI by the owner or client.

4.7 Owner, Maintenance Supervisor, and Occupant Information

According to the Westford Assessor's Department, the current owner of the property is the Town of Westford.

LAI conducted an interview with Lieutenant Shawn Girard, with the Westford Fire Department. Lt. Girard provided information regarding the history of the Site and operations at the Site. Lt. Girard indicated that prior to the construction of the Fire Department building the Site vacant land.

4.8 Reason for Performing Phase I Study

A Phase I ESA is being conducted in connection with the demolishing of the building at the property.

5.0 RECORDS REVIEWS

A review of federal, state and local regulatory agency files was conducted in accordance with ASTM E-1527-13 standards to identify the use, generation, storage, treatment, disposal and/or release of oil and/or hazardous materials that may potentially impact the Site.

5.1 Municipal Offices

5.1.1 Assessor's Office

Lord Associates, Inc. visited the municipal Assessor's Office to review historical ownership information for the Site. This data was reviewed for the purposes of land use determination and should not be relied upon as a complete chain-of-title. The following table offers a summary of ownership information obtained at the assessor's office for the Site.

Table 2
Chain of Title

Grantee	Date of Acquisition	Book/Page
Osgood	Unknown	unknown
Town of Westford	August 8, 1970	79/68

5.1.2 Health Department

LAI made inquiries at the municipal Board of Health (BOH). No records were available for the Site.

5.1.3 Building Department

A review of files was requested at the municipal Building Department to obtain information on historical building alterations. General building permits for the Site were on file, but they did not reveal any information or condition that could impact the environmental integrity of the Site. No environmentally significant information was identified.

5.1.4 Water Department

Water is supplied by the municipal Water Department; the connection date was not available.

5.1.5 Conservation Commission

A review of files was requested at the municipal Conservation Commission regarding environmental violations. No records were available for the Site.

5.1.6 Clerk's Office

A review of files was requested at the municipal Clerk's Office regarding environmental violations. No records were available for the Site.

5.1.7 Fire Prevention

LAI requested a review of information regarding the storage of hazardous materials at the Site from the municipal Fire Prevention Office. According to the Fire Department records one 550-gallon diesel underground fuel oil tank (UST) was removed from the east side of the Site on July 23, 1997. Information in the file indicated that no contamination was identified during the removal activities. However, no soil testing results were available.

The Site also contains one 275-gallon diesel aboveground fuel storage tank (AST) used to fuel the fire engines. The AST was observed in the garage area; no staining was observed in the area surrounding the tank. One 275-gallon waste oil AST was observed in room on the exterior of the building. Minor staining was observed on the concrete in the vicinity of the tank.

One 275-gallon No.2 fuel oil AST was formerly located at the Site. The tank was removed on September 29, 2009 during the conversion of the heating system to natural gas.

5.2 Sanborn/Historical Map Review

Sanborn Fire Insurance Maps were reviewed for the Site and vicinity. Sanborn Maps usually show property use and underground commercial fuel storage for the purposes of insurance companies. No Sanborn Maps were available for the Site.

5.3 Historical Aerial Photograph Review

Aerial photographs from 1963, 1965, 1971, 1978, 1995, 2001 and 2005 were reviewed through the Historic Aerials website (www.historicaerials.com) and a current 2013 aerial photograph was reviewed from Google Earth. The following table summarizes the aerial photographs review.

**Table 4
Aerial Photographs**

Aerial Year	Site Description	Area Description	
		Direction	Description
1963 1965 1971	The Site appears as cleared land.	North	Town hall
		South	Cleared land
		East	Cleared land
		West	Residential
1978 1995 2001 2005	The Site appears developed with the current building appears similar to the current configuration.	North	Town hall
		South	Parking lot
		East	Cleared land
		West	Residential

5.4 Radius Search for Properties of Environmental Concern

A radius search was conducted of federal and state-listed sites of potential environmental concern as outlined in ASTM E-1527 guidelines. The search was performed using software developed by Environmental Risk Information Service (ERIS) report. The Site is listed on the FINDS/FRS database. In connection with the emergency generator equipment located on the same parcel of land. No spills or releases are associated with the Site listing.

Listed sites identified within the designated ASTM search radii are summarized in the following table. The ERIS report is included in **Appendix B**.

**Table 5
Properties of Potential Environmental Concern**

NPL (1 mi.)	RCRIS TSDF (1 mi.)	CERCLIS (0.5 mi.)	Landfill (0.5 mi.)	STATE SITES (0.50 mi.)	LUST & SPILLS (0.25 mile)	ERNS (Site/ Abutter	RCRIS (Site/ Abutter	UST (Site/ Abutter
NI	NI	NI	NI	NI	NI	NI	NI	NI

Notes:

N=north, S=south, W=west, E=east
 Elev. Diff: = Difference in elevation from Site in feet
 NPL = National Priorities List
 RCRIS = Resource Conservation and Recovery Information System
 TSDF = Treatment Storage & Disposal Facilities
 ERNS = Environmental Response Notification System
 NI = None Identified
 NFA – LSP Opinion of No Further Action
 RAO = Closed in accordance with MADEP Regulations
 TierII = Listed with MADEP due to oil or hazardous material in soil/groundwater (not closed)
 DPS = Downgradient Property Status (contamination is from an upgradient source)
 UST = Underground Storage Tank
 F = Final
 AUL = Activity and Use Limitation

5.5 Massachusetts Department of Environmental Protection Review

Site-specific files were not reviewed at the Massachusetts Department of Environmental Protection (MADEP) since sites identified in the ERIS report have been closed-out by the MADEP or the identified properties are located topographically and/or hydraulically downgradient from the Site. The identified properties, therefore, are not suspected to pose a material threat of harm to the Site.

5.6 Previous Reports

No previous reports were made available through sources cited in this assessment.

5.7 Physical Setting Sources

LAI reviewed information provided by the United States Geological Survey (USGS) in connection with physiographic conditions, soil and bedrock types. LAI also reviewed the MassGIS Resource Map for the area, and located natural resources during the Site Reconnaissance. According to the USGS Westford South Quadrangle Topographical Map, the elevation of the Site is approximately 390 feet above mean sea level. Topography of the Site vicinity is sloped down to the east. The direction of groundwater flow in the vicinity is estimated to the west. No water bodies are located on the Site. A small unnamed pond is located approximately 3,900 to the west of the Site.

Review of the MassGIS Bureau of Waste Site Cleanup Priority Resources Maps published by the MADEP, indicated the Site is not located in a potential aquifer area. Review of the

National Wetlands Inventory from the U.S. Fish and Wildlife Service, indicated that no wetlands are located on the Site or adjacent properties.

The Soil Survey of Middlesex County indicates that soil in the vicinity of the Site is classified as Woodbridge soils, described as a moderately well drained, fine, sandy loam with a zero to three percent slope.

5.8 Historical Use Information

Research regarding historical land usage of the Site and surrounding properties was conducted using data obtained from historical maps, parties familiar with the Site, and municipal officials. Based on information gathered through the course of this assessment, the following history of the Site has been prepared:

- Historical information indicates the current building was constructed in approximately 1975. The Site building has been utilized as the Town of Westford Fire Department Headquarters since its construction. Prior to the current Site improvements the Site was undeveloped land.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

On October 29, 2014, LAI personnel conducted on-Site inspections, which consisted of a visual examination of the Site and portions of adjacent properties and interviews with Site personnel. Areas were examined for surficial indications of releases of oil and/or hazardous materials (OHM).

LAI was accompanied by Lieutenant Shawn Girard, with the Westford Fire Department during the inspection. A Site Plan depicting significant features observed is included as **Figure 3** and photographs are included in **Appendix A** of this report.

6.2 Interior Inspection

The Site is located on the east side of Main Street in Westford, Massachusetts. The Site property is occupied by the Westford Fire Department Headquarters, which consists of a two-story fire department building constructed on-slab. The majority of the first floor is occupied by the garage. The boiler room and offices exist on the northern portion of the building. The second floor is occupied by office space.

Heat for the majority of the building is provided by natural gas fired boilers. Electric powered cooling and heat pump units service the office areas. Hot water is provided by a natural gas-fired water heater. A floor drain was observed in the boiler room located on the northeast corner of the building.

One 275-gallon diesel AST was observed on the southeast corner of the garage and is used

to fuel the fire engines. No staining was observed in the area surrounding the tank. Lt. Girard indicated that no maintenance to the vehicles takes place on Site. One 275-gallon waste oil AST was observed in room accessed on the exterior of the building. Minor staining was observed on the concrete in the vicinity of the tank.

No evidence of a significant surface release of OHM was observed through the course of our inspection. LAI inspected the roof.

6.3 Exterior Inspection

The building comprises the entire Site. The lot is also occupied by the Westford Police Complex and the emergency generator building which services the fire and police department buildings. A courtyard and parking lot exists between the buildings. There are no pits, ponds, lagoons or surface water bodies located at the Site.

There were no areas of solid waste disposal, mounds or depressions, or areas apparently filled or graded by non-natural causes suggesting solid waste disposal observed.

7.0 INTERVIEWS

LAI interviewed the Site owner's representative in connection with property conditions and the potential for Recognized Environmental Conditions.

Lieutenant Shawn Girard, with the Westford Fire Department accompanied our personnel during the inspection. She was interviewed and questioned of any knowledge regarding environmental conditions or releases at the Site.

8.0 SUMMARY OF FINDINGS AND CONCLUSION

8.1 Findings

Lord Associates, Inc. has completed a Phase I Environmental Site Assessment of the Site. This assessment was performed with consideration to standard industry practice and the ASTM E-1527-13 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Our findings are presented below:

1. Information provided indicates that the Site consists of the Westford Fire Department Headquarters building with an approximate footprint of 3,840 square feet, located on a single lot along with the Westford Police Complex and the emergency generator building. The lot totals approximately 30 acres of land located on the east side of Main Street in Westford, Massachusetts. However, for the purpose of this assessment the Fire Department building is the only structure on the lot that is being considered. The Site is designated as Lot 47 on Assessor's Map 59 with the Westford Tax Assessor's Office.

2. The Site property is occupied by the Westford Fire Department Headquarters, which consists of a two-story fire department building constructed on-slab. The lot is also occupied by the Westford Police Complex and the emergency generator building which services the fire and police department buildings.
3. Lord Associates, Inc. conducted an inspection of the Site consisting of a visual examination of the Site, immediate surrounding features, and abutting properties. The Site is connected to municipal water and sewer systems. The municipal sewer system which is comprised of a waste water treatment plant located at the public high school. Heat for the majority of the building is provided by natural gas fired boilers. Electric powered cooling and heat pump units service the office areas. Hot water is provided by a natural gas-fired water heater.
4. There are no pits, ponds, lagoons or surface water bodies located at the Site.
5. Municipal file reviews were performed. No evidence of a release of OHM was identified during the assessment. According to the Fire Department records one 550-gallon diesel underground fuel oil tank (UST) was removed from the east side of the Site on July 23, 1997. Information in the file indicated that no contamination was identified during the removal activities. However, no soil testing results were available. The Site also contains one 275-gallon diesel aboveground fuel storage tank (AST) used to fuel the fire engines. The AST was observed in the garage area; no staining was observed in the area surrounding the tank. One 275-gallon waste oil AST was observed in room on the exterior of the building. Minor staining was observed on the concrete in the vicinity of the tank. One 275-gallon No.2 fuel oil AST was formerly located at the Site. The tank was removed on September 29, 2009 during the conversion of the heating system to natural gas.
6. Historical information indicates the current building was constructed in approximately 1975. The Site building has been utilized as the Town of Westford Fire Department Headquarters since its construction. Prior to the current Site improvements the Site was undeveloped land.
7. The Site is listed on the FINDS/FRS database. No spills or releases are associated with the Site listing. No Sites were identified in the radius search of waste sites in the vicinity.

8.2 Conclusions

This assessment has identified one potential Recognized Environmental Condition (REC) in connection with the property 51 Main Street in Westford, Massachusetts. The lack of soil testing documentation from the removal of the 550-gallon diesel UST.

Any exceptions to, or deletions from, ASTM Practice E1527 are described in **Section 9** of this report. Please note that an investigation for the presence of mold, asbestos and PCBs in building materials, lead-based paint, indoor air quality, or regulatory compliance is

beyond the scope of work described by ASTM E 1527-13, therefore LAI did not explore those conditions.

9.0 RESTRICTIVE CONDITIONS

9.1 Limitations & Deviations

LAI recognizes the following limitations and/or deviations from the Standard with respect to this Phase I Environmental Site Assessment:

- LAI did not interview past owners of the Site;
- LAI did not interview owners of neighboring property;
- LAI did not review Title Records for the Site; and
- LAI did not conduct an evaluation of the purchase price of the Site compared to the fair market value.

9.2 Significance of Data Gaps

As described above, the deviations from the Standard constitute data gaps. However, it is our opinion that these data gaps do not raise reasonable concerns that would affect the ability to identify conditions indicative of a release or threatened release or Recognized Environmental Conditions (RECs) based upon other information collected during the course of the Phase I Environmental Site Assessment.

- Although the past owner and owners of neighboring property were not interviewed, site and surrounding area history does not indicate prior use involving oil and/or hazardous materials.
- In Massachusetts, all environmental liens and Activity and Use Limitations are identified on the MADEP sites database, which has been searched.
- Based on Site History, there is no reasonable indication that property value has been affected due to environmental concerns.

10.0 LIMITATIONS

No warranty, whether expressed or implied, is given with respect to this report or any opinions expressed herein. It is expressly understood that this report and the opinions expressed herein are based upon Site conditions, as they existed only at the time of assessment. Nothing in this report constitutes a legal opinion or legal service, and should not be relied upon as such.

The data reported and the findings, observations, and opinions expressed in the report are limited by the Scope of Work. The Scope of Work was performed based on budgetary, time, and other constraints imposed by the Client, and the agencies and persons reviewed.

In preparing this report, Lord Associates, Inc. has relied upon and presumed accurate certain information about the Site and adjacent properties provided by governmental

agencies, the client and others identified in the report. Except as otherwise stated in the report, Lord Associates, Inc. has not attempted to verify the accuracy or completeness of any such information.

This report has been prepared on behalf of and for the exclusive use of the client, and those immediate entities involved with the proximate financing of this project, solely for use in the environmental evaluation of the Site. Any reuse or reliance on this report by any other third party shall be done only with the written consent of LAI.

11.0 SIGNATURES AND ENVIRONMENTAL PROFESSIONAL STATEMENT

LAI declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. LAI has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. LAI has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

This report is dated this November 14, 2014 and is signed by individuals who are duly authorized to do so.



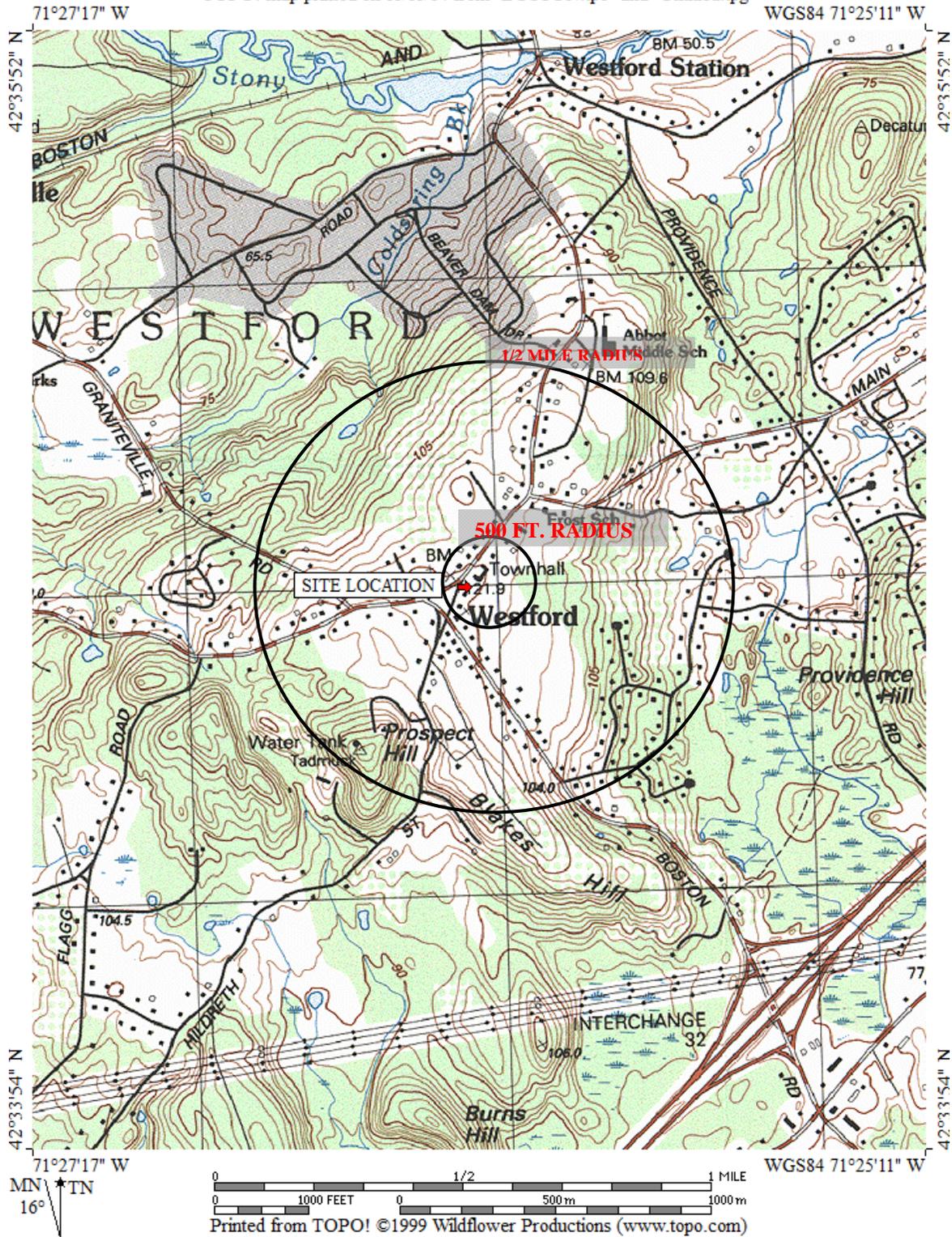
Ralph Tella, CHMM, LSP
President



Andrea J. Lang
Project Manager

Phase I Environmental Site Assessment - Appendix *a*

TOPO! map printed on 11/11/14 from "BOSTON.tpo" and "Untitled.tpg"



LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
Norwood, MA 02062-4647
(781) 255-5554

REFERENCE:

USGS TOPOGRAPHIC MAPS
BILLERICA QUADRANGLE
CONTOUR INTERVAL: 3 METERS

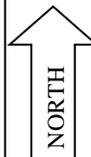


FIGURE 1: LOCATION MAP

**51 MAIN STREET
WESTFORD, MASSACHUSETTS**



LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
 Norwood, MA 02062-4647
 (781) 255-5554

REFERENCE:

EXCERPT OF WESTFORD
 ASSESSORS MAP 59

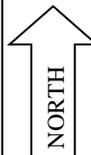
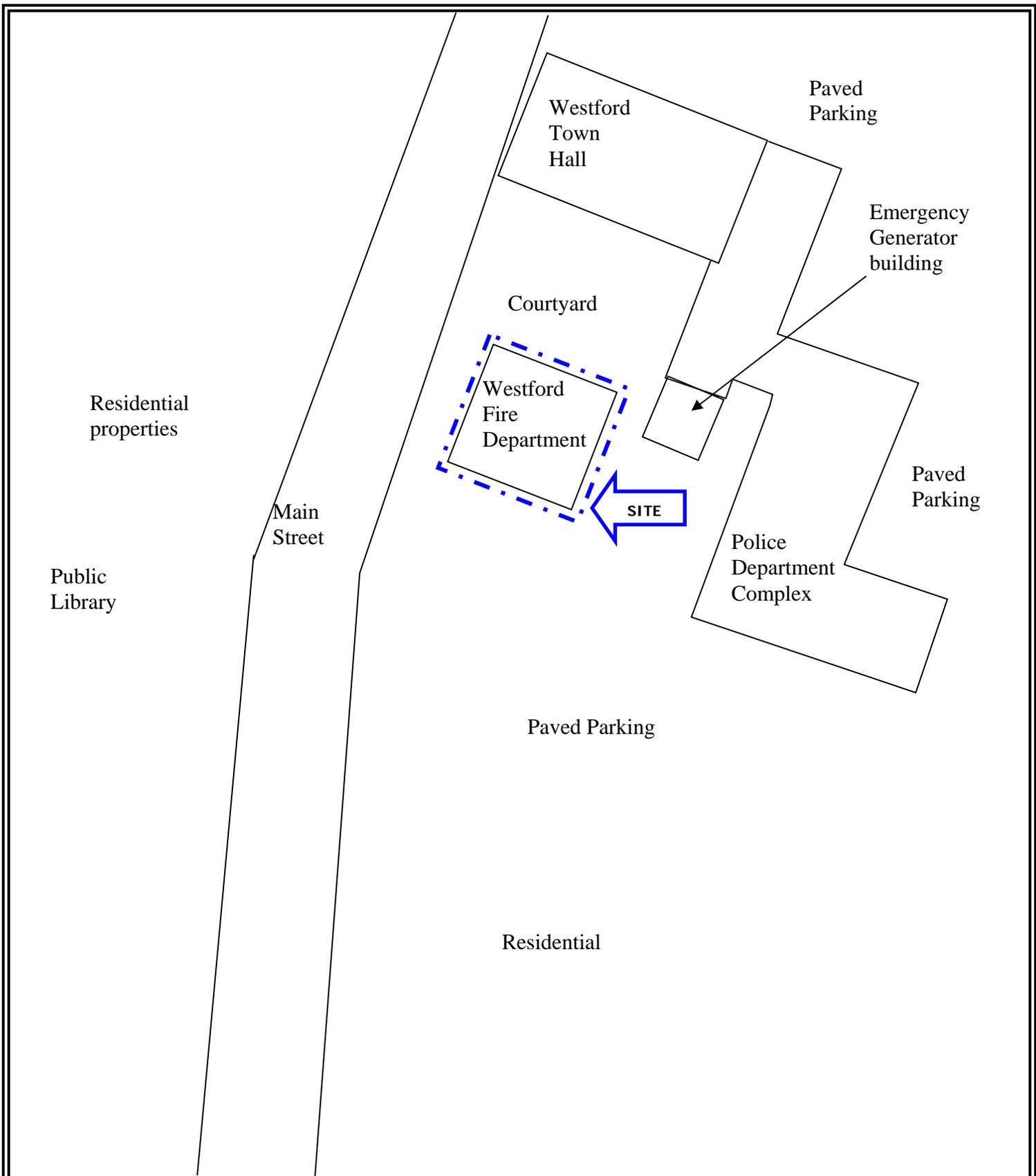


FIGURE 2: PLAT PLAN

LOT 47
51 MAIN STREET
WESTFORD, MASSACHUSETTS



LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
 Norwood, MA 02062-4647
 (781) 255-5554

REFERENCE:

SCALE: NTS DRAWN BY: AJL
 DATE: 11/13/2014

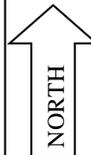


FIGURE 3: SITE PLAN

**51 MAIN STREET
 WESTFORD, MASSACHUSETTS**



LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
Norwood, MA 02062-4647
(781) 255-5554

REFERENCE:

GOOGLE MAPS



FIGURE 4: AERIAL MAP

**51 MAIN STREET
WESTFORD, MASSACHUSETTS**

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:

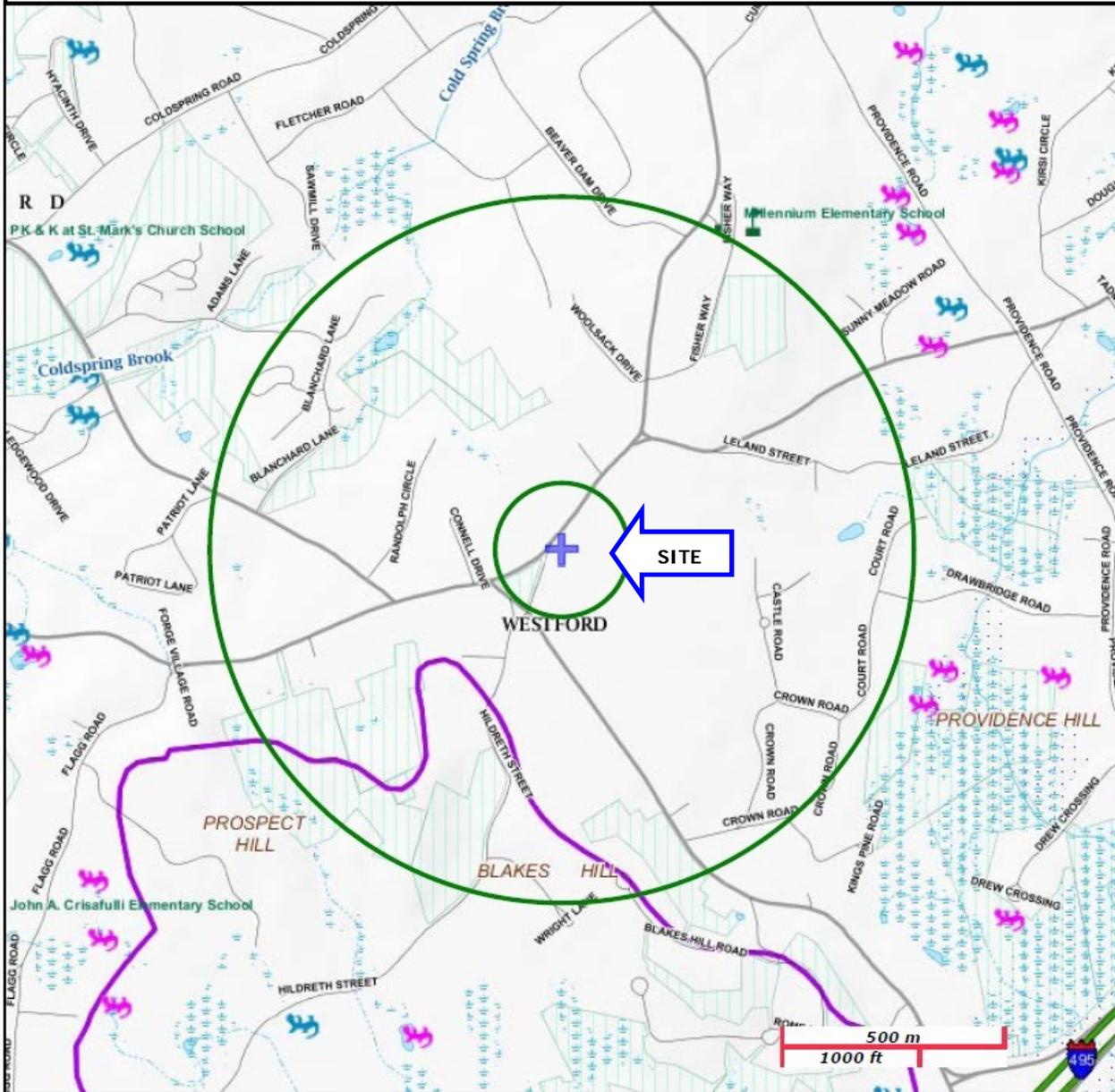
51 MAIN ST WESTFORD, MA

NAD83 UTM Meters:
4717255mN, 299971mE (Zone: 19)
November 11, 2014

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: <http://www.mass.gov/mgis/>



MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, MPA, Zone A			
Boundaries: Town, County, DEP Region, Train, Powerline, Pipeline, Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat			
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog			
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain, Protected Open Space, ACEC			
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential			
	Solid Waste Landfill; PWS: Com. GW, SW, Emerg, Non-Com			

LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
Norwood, MA 02062-4647
(781) 255-5554

REFERENCE:

MASSACHUSETTS GIS
DEP PRIORITY RESOURCES MAP
<http://maps.massgis.state.ma.us/21e/>

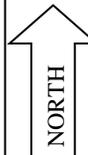


FIGURE 5: PRIORITY RESOURCES

51 MAIN STREET
WESTFORD, MASSACHUSETTS



U.S. Fish and Wildlife Service

National Wetlands Inventory

Nov 11, 2014

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

LORD ASSOCIATES, INC.

1506 Providence Highway, Suite 30
 Norwood, MA 02062-4647
 (781) 255-5554

REFERENCE:

US FISH AND WILDLIFE
 SERVICE
 NATIONAL WETLANDS



FIGURE 6: WETLANDS MAP

51 MAIN STREET
 WESTFORD, MASSACHUSETTS

Lord Associates, Inc.

PHOTOGRAPHIC RECORD

Project #: 2185



Photo #1: West side of Site, facing east.



Photo #2: South side of Site



Photo #3: North side of Site, facing east



Photo #4: East side of the building, facing west



Photo #5: 275-gallon diesel AST for fueling the fire vehicles



Photo #6: 275-gallon waste oil tank



Photo #7: Boilers

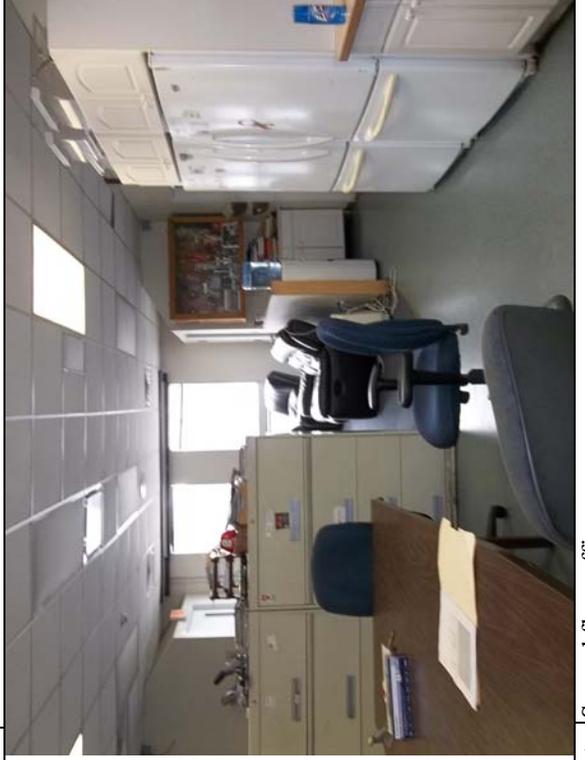


Photo #8: Second floor office area.

Phase I Environmental Site Assessment - Appendix *b*



DATABASE REPORT



Project Property: *Westford Fire Dept Headquarters
51 Main St
Westford MA 01886
2185*

P.O. Number: *2185*

Report Type: *Database Report + Fire Insurance Maps*

Order #: *20141106023*

Requested by: *Lord Associates, Inc.*

Date: *November 6, 2014*

Ecolog ERIS Ltd.
Environmental Risk Information
Service Ltd. (ERIS)
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com
www.erisinfo.com

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Executive Summary

Property Information:

Project Property: *Westford Fire Dept Headquarters
51 Main St Westford MA 01886*

P.O. Number: *2185*

Coordinates:

Latitude: *42.582177*
Longitude: *-71.437522*
UTM Northing: *4,717,297.92*
UTM Easting: *299,975.49*
UTM Zone: *UTM Zone 19T*

Elevation: *387 FT*

Order Information:

Order No.: *20141106023*
Date Requested: *07/11/2014*
Requested by: *Lord Associates, Inc.*
Report Type: *Database Report + Fire Insurance Maps*

Ancillary Products:

Fire Insurance Maps *US Fire Insurance Maps*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1.00	0	0	0	0	0	0
PROPOSED NPL	Y	1.00	0	0	0	0	0	0
DELISTED NPL	Y	0.50	0	0	0	0	-	0
CERCLIS	Y	0.50	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.50	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1.00	0	0	0	0	0	0
RCRA TSD	Y	0.50	0	0	0	0	-	0
RCRA GEN	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
FED ENG	Y	0.50	0	0	0	0	-	0
FED INST	Y	0.50	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.50	0	0	0	0	-	0
State								
SWF/LF	Y	0.50	0	0	0	0	-	0
LUST	Y	0.50	0	0	0	0	-	0
LST	Y	0.50	0	0	0	0	-	0
HIS LUST	Y	0.50	0	0	0	0	-	0
LAST	Y	0.50	0	0	0	0	-	0
HIS LAST	Y	0.50	0	0	0	0	-	0
UST	Y	0.25	0	0	1	-	-	1
AST	Y	0.25	0	0	0	-	-	0
AUL	Y	0.50	0	0	0	0	-	0
BROWNFIELDS	Y	0.50	0	0	0	0	-	0
RELEASE	Y	1.00	0	0	0	0	1	1

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Tribal	No Tribal standard environmental record sources available for this State.							
County	No County standard environmental record sources available for this State.							

Additional Environmental Records

Federal

FINDS/FRS	Y	PO	1	-	-	-	-	1
TRIS	Y	PO	0	-	-	-	-	0
HMIRS	Y	0.12	0	0	-	-	-	0
NCDL	Y	PO	0	-	-	-	-	0
ODI	Y	0.50	0	0	0	0	-	0
IODI	Y	0.50	0	0	0	0	-	0

State

HIS SPILLS	Y	0.12	0	0	-	-	-	0
------------	---	------	---	---	---	---	---	---

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Total: 1 0 1 0 1 3

* PO – Property Only

* 'Property and adjoining properties' database search radii are set at 0.25 miles.

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist mi</i>	<i>Elev diff ft</i>	<i>Page Number</i>
1	FINDS/FRS	WESTFORD FIRE DEPT	51 MAIN ST WESTFORD MA 018860000	-/0.00	0	12

Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist mi</i>	<i>Elev Diff ft</i>	<i>Page Number</i>
2	UST	VERIZON MASSACHUSETTS #524506	2 DEPOT RD WESTFORD MA 01886-2608	NE/0.19	-2	12
3	RELEASE	MILLENNIUM ELEMENTARY SCHOOL	23 DEPOT RD WESTFORD MA	NNE/0.52	-39	13

Executive Summary: Summary by Data Source

Standard

State

RELEASE - Waste Site Cleanup Notifications/Reportable Releases

A search of the RELEASE database, dated Sep 5, 2014 has found that there are 1 RELEASE site(s) within approximately 1.00 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>
MILLENNIUM ELEMENTARY SCHOOL	23 DEPOT RD WESTFORD MA	NNE	0.52	3

UST - Underground Storage Tanks (UST)

A search of the UST database, dated Jul 2013 has found that there are 1 UST site(s) within approximately 0.25 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>
VERIZON MASSACHUSETTS #524506	2 DEPOT RD WESTFORD MA 01886-2608	NE	0.19	2

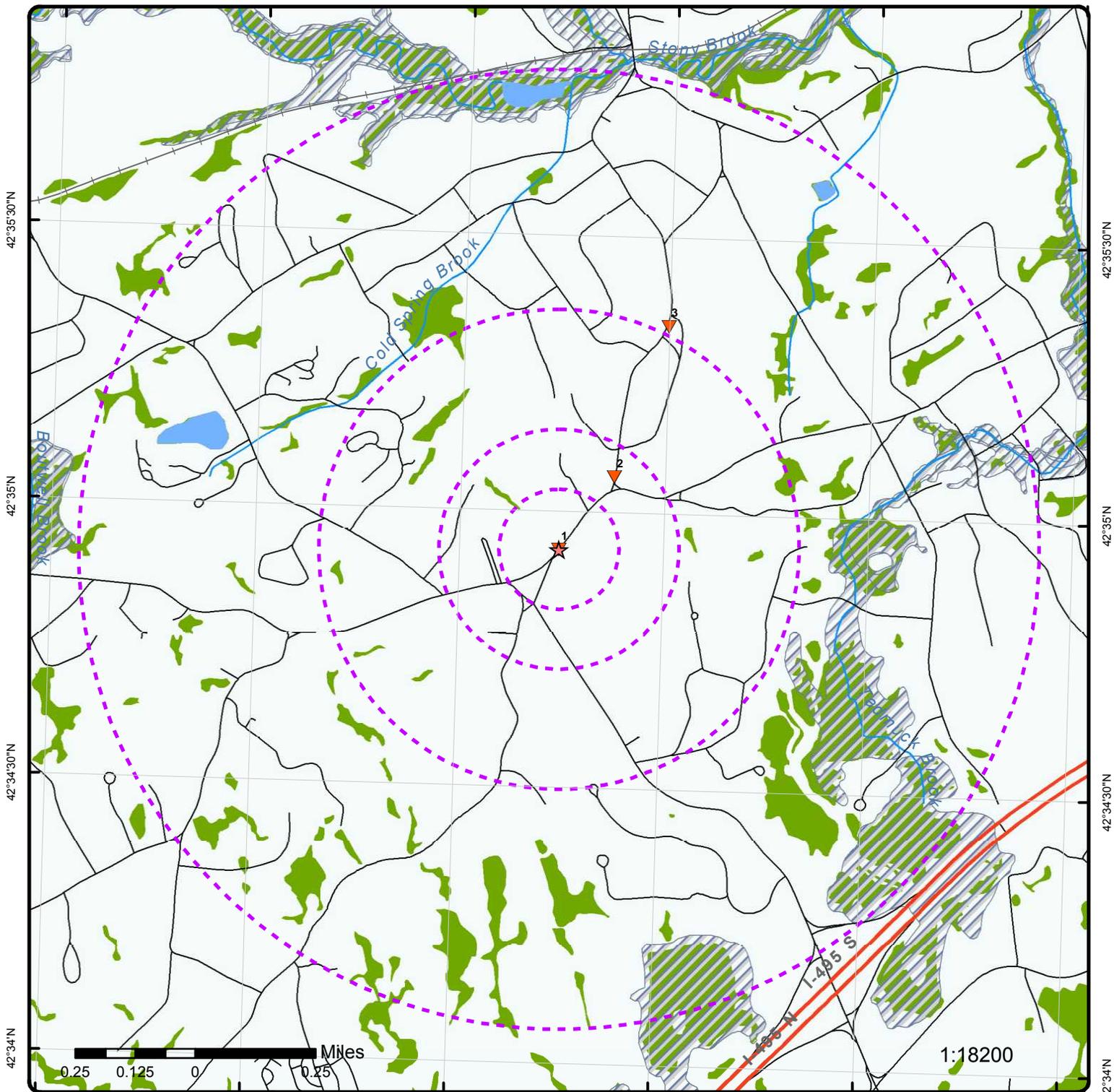
Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Aug 16, 2014 has found that there are 1 FINDS/FRS site(s) within approximately 0.02 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>
WESTFORD FIRE DEPT	51 MAIN ST WESTFORD MA 018860000	-	0.00	1
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance mi</u>	<u>Map Key</u>

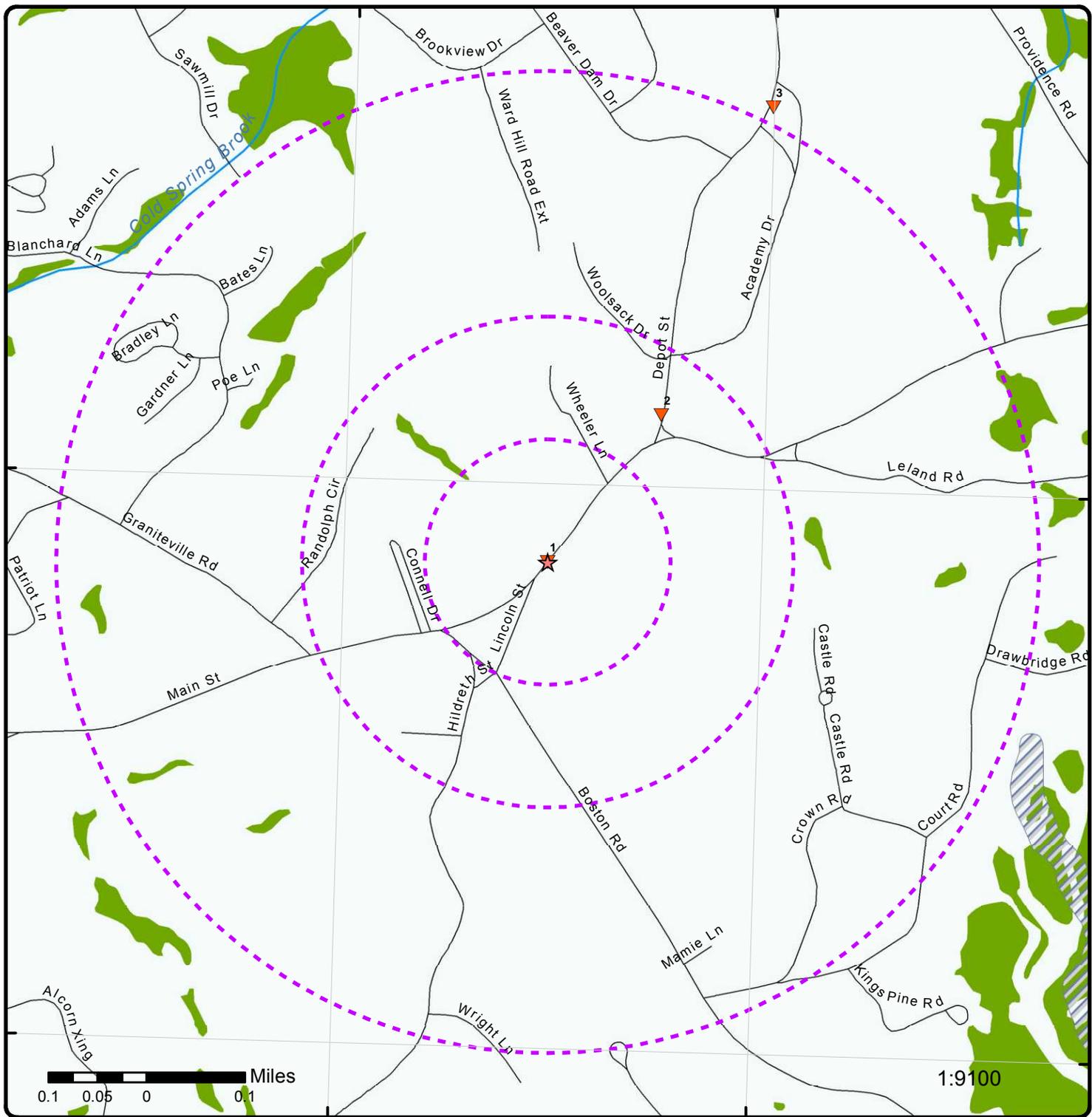


Map : 1 Mile Radius

Order No: 20141106023
 Address: 51 Main St, Westford, MA, 01886



★	Project Property	—	Major Highways	—+—	Rails	■	National Wetland
⬡	Buffer Outline	—	Major Highways Ramps	⬡	County Boundary	▨	Indian Reserve Land
▲	Eris Sites with Higher Elevation	—	Major Roads	▭	State Boundary	▨	Historic Fill
■	Eris Sites with Same Elevation	—	Major Roads Ramps	▨	500 Year Flood Zone	▨	State Brownfield
▼	Eris Sites with Lower Elevation	—	Secondary Roads	▨	100 Year Flood Zone	▨	State Superfund Areas: Dept. of Defense
○	Eris Sites with Unknown Elevation	—	Secondary Roads Ramps	▨	National Priority List Sites	▨	State Superfund Areas: NPL
		—	Local Roads and Ramps			▨	Water Quality Assurance Revolving Fund Areas

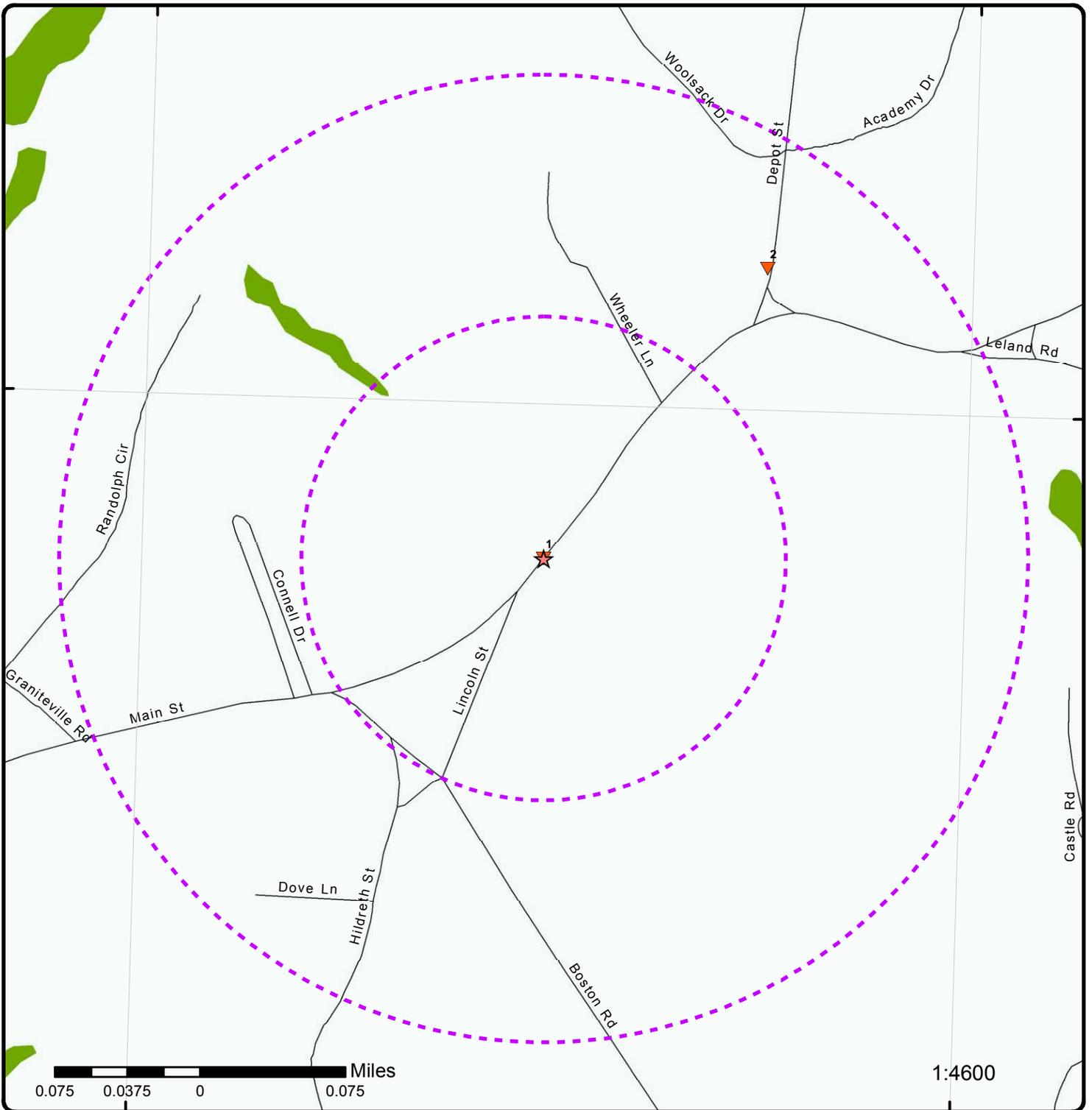


Map : 0.5 Mile Radius

Order No: 20141106023
Address: 51 Main St, Westford, MA, 01886



Project Property	Major Highways	Rails	National Wetland
Buffer Outline	Major Highways Ramps	County Boundary	Indian Reserve Land
Eris Sites with Higher Elevation	Major Roads	State Boundary	Historic Fill
Eris Sites with Same Elevation	Major Roads Ramps	500 Year Flood Zone	State Brownfield
Eris Sites with Lower Elevation	Secondary Roads	100 Year Flood Zone	State Superfund Areas: Dept. of Defense
Eris Sites with Unknown Elevation	Secondary Roads Ramps	National Priority List Sites	State Superfund Areas: NPL
	Local Roads and Ramps	Water Quality Assurance Revolving Fund Areas	



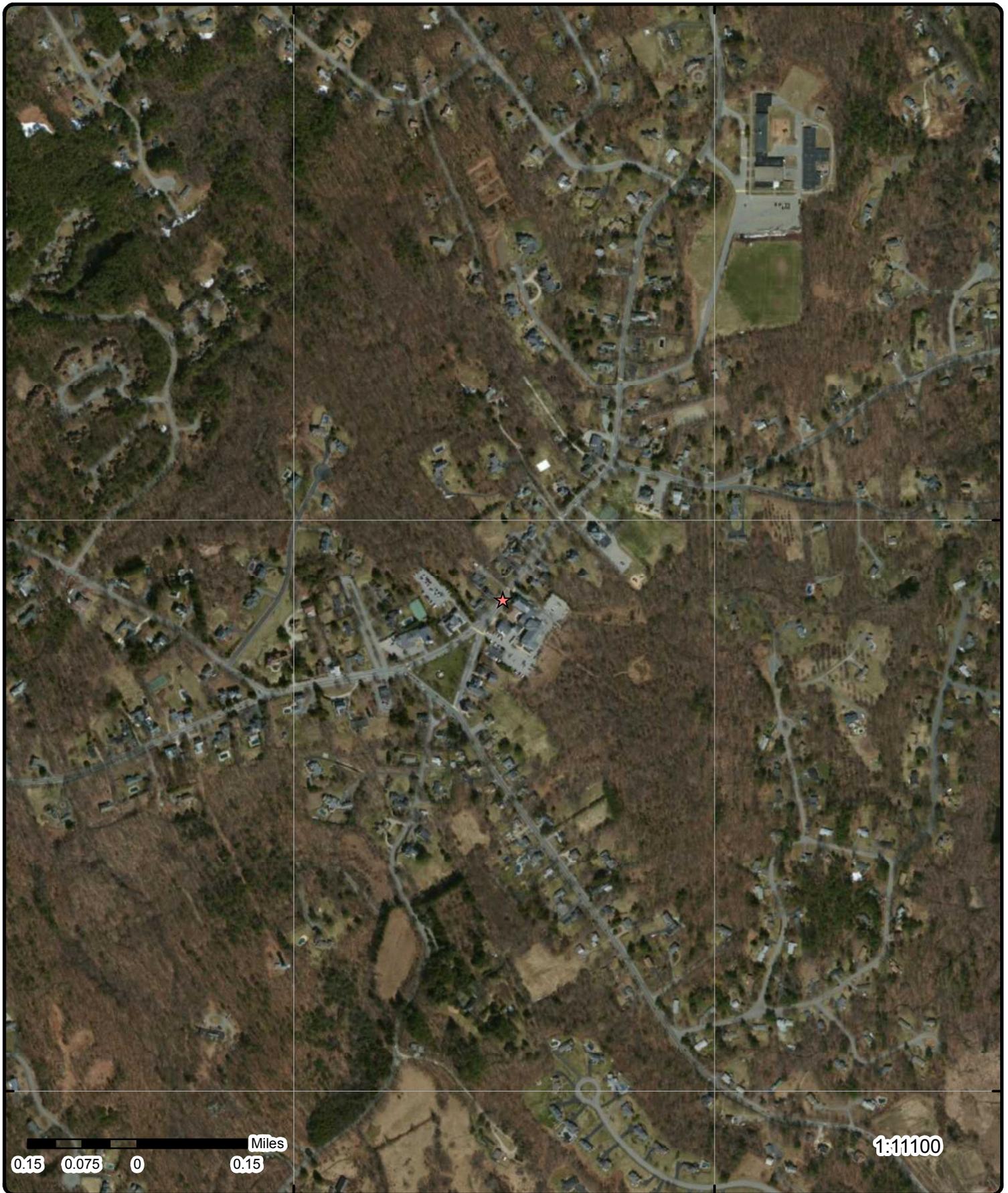
Map : 0.25 Mile Radius

Order No: 20141106023

Address: 51 Main St, Westford, MA, 01886



Project Property	Major Highways	Rails	National Wetland
Buffer Outline	Major Highways Ramps	County Boundary	Indian Reserve Land
Eris Sites with Higher Elevation	Major Roads	State Boundary	Historic Fill
Eris Sites with Same Elevation	Major Roads Ramps	500 Year Flood Zone	State Brownfield
Eris Sites with Lower Elevation	Secondary Roads	100 Year Flood Zone	State Superfund Areas: Dept. of Defense
Eris Sites with Unknown Elevation	Secondary Roads Ramps	National Priority List Sites	State Superfund Areas: NPL
	Local Roads and Ramps		Water Quality Assurance Revolving Fund Areas



Aerial

Order No: 20141106023

Address: 51 Main St, Westford, MA, 01886

Detail Report

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
1	1 of 1	-/0.00	387.32	WESTFORD FIRE DEPT 51 MAIN ST WESTFORD MA 018860000	FINDS/FRS

Facility Detail Report URL: http://iaspub.epa.gov/enviro/fii_query_detail_disp_program_facility?p_registry_id=110043918847

Registry ID: 110043918847

Program Acronyms: E-GGRT, MA-EPICS

Supplemental Location:

Location Description:

County Name: MIDDLESEX

FIPS Code: 25017

Federal Facility Code:

Federal Agency Name:

Tribal Land Code:

Tribal Land Name:

Congressional Dist No: 05

Census Block Code: 250173183004053

HUC Code: 01070006

EPA Region Code: 01

Site Type Name: STATIONARY

Create Date: 29-SEP-11

Update Date: 29-AUG-13

US/Mexico Border Ind:

Interest Types: GREENHOUSE GAS REPORTER, STATE MASTER

NAICS Codes:

NAICS Code Descriptions:

SIC Codes:

SIC Code Descriptions:

Latitude: 42.582139

Longitude: -71.437604

Datum: NAD83

Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER

Accuracy Value: 150

Reference Point: ENTRANCE POINT OF A FACILITY OR STATION

Source:

Conveyor: FRS

2	1 of 1	NE/0.19	385.21	VERIZON MASSACHUSETTS #524506 2 DEPOT RD WESTFORD MA 01886-2608	UST
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Facility ID: 11340

Owner ID: 9144

Owner Name: VERIZON MASSACHUSETTS

Owner Address: 2 HAMPSHIRE ST

Owner City: LAWRENCE

Owner State: MA

Owner ZIP: 01840

Facility County: MIDDLESEX

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
Description:		Utilities			
Work Phone:		(315) 432-8486			
Fire Department:		17330			
UST Over Fill Prevention:		Yes			
UST Spill Prevention:		Yes			
Contact Name:		GREGORY MYKA			
Contact Street po:		PO BOX 6360			
Contact City:		SYRACUSE			
Contact State:		NY			
Contact ZIP:		13217			
Inspection Date:		22-JUL-10			
Coc exp:					
Opertrain:					
Last Update:		04-OCT-11			

--- Details ---

Tank ID:	1
Serial #:	
Aboveground:	N
Capacity:	1000
Contents:	Diesel
Status:	Removed
Use:	Other
Tank Material:	Steel
Tank Type:	1 Wall
Pipe Material:	
Pipe Type:	Suction: Check Valve @ Tank
Tank Leak Detect:	Inventory Record-Keeping
Pipe Leak Detect:	Interstitial Space Monitor
Date Installed:	1/1/1975
Status Date:	7/15/1997
+	
Tank ID:	2
Serial #:	
Aboveground:	N
Capacity:	1000
Contents:	Diesel
Status:	In Use
Use:	Other
Tank Material:	Reinforced
Tank Type:	2 Walls
Pipe Material:	Flexible
Pipe Type:	2 Walls
Tank Leak Detect:	Interstitial Monitoring
Pipe Leak Detect:	Suction: Check Valve at Tank w/ Interstitial Monitor
Date Installed:	8/1/1997
Status Date:	

<u>3</u>	1 of 1	NNE/0.52	348.66	MILLENNIUM ELEMENTARY SCHOOL 23 DEPOT RD WESTFORD MA	RELEASE
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RTN:	3-0028087
OFC Town:	WESTFORD
OFC Notification:	21-OCT-08
Category:	TWO HR
Prim ID:	
Current ST:	RAO
Current ST Description:	Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance mi</i>	<i>Elevation ft</i>	<i>Site</i>	<i>DB</i>
				Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.	
Phase:					
RAO Class:		A1			
OHM:		Hazardous Material			
Phase Description:					
RAO Class Description:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Current DA:		16-JUL-09			
Action					
Action:				Immediate Response Action	
Status:				Oral Approval of Plan or Action	
Date:				21-OCT-08	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Immediate Response Action	
Status:				Completion Statement Received	
Date:				16-JUL-09	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Immediate Response Action	
Status:				Written Plan Received	
Date:				10-DEC-08	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Immediate Response Action	
Status:				Status or Interim Report Received	
Date:				10-FEB-09	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Immediate Response Action	
Status:				Level I - Technical Screen Audit	
Date:				02-MAR-09	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Immediate Response Action	
Status:				Level I - Technical Screen Audit	
Date:				11-DEC-08	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Date:				11-DEC-08	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Response Action Outcome - RAO	
Status:				Fee Received - FMCRA Use Only	
Date:				27-JUL-09	
RAO Class:				A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.	
Action:				Response Action Outcome - RAO	
Status:				RAO Statement Received	

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance mi</i>	<i>Elevation ft</i>	<i>Site</i>	<i>DB</i>
Date:			16-JUL-09		
RAO Class:			A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.		
Action:			Release Disposition		
Status:			Reportable Release under MGL 21E		
Date:			21-OCT-08		
RAO Class:			A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.		
Status:			Reportable Release under MGL 21E		
Date:			10-DEC-08		
RAO Class:			A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.		
Status:			Transmittal, Notice, or Notification Received		
Date:			10-DEC-08		
RAO Class:			A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.		
Chemical					
Chemical:			ASBESTOS		
Amount:			1		
Units:			LBS		
Chemical:			ASBESTOS		
Amount:			10		
Units:			LBS		
Location					
Location:			MUNICIPAL		
Location:			SCHOOL		
Source					
Source:			HISTO		
Source:			RIC FILL		
Source:			UNKNOWN		

Unplottable Summary

DB	Company Name/Site Name	Address	City	Zip
FINDS/FRS	FORGE VILLAGE AUTO BODY	NORTH MAIN ST	WESTFORD MA	01886-2551
HIS LUST	EXXON STATION	BOSTON POST ROAD & CHELMSFORD	WESTFORD MA	01886
HIS LUST	MASS DPW	BOSTON RD.	WESTFORD MA	01886
HIS SPILLS	CYANIDE RELEASE	MAIN ST.	WESTFORD MA	01886
LST	MHD FACILITY 49	BOSTON RD AND RTE 495	WESTFORD MA	01886
LUST	MHD FACILITY 49	BOSTON RD AND RTE 495	WESTFORD MA	
RCRA GEN	HOME NUTRITIONAL SERVICES INC	OLD BOSTON SQ	WESTFORD MA	01886
RCRA GEN	FORGE VILLAGE AUTO BODY	NORTH MAIN ST	WESTFORD MA	01886
RCRA NON GEN	NEW ENGLAND TELE	DEPOT ST	WESTFORD MA	01886
RELEASE	MASSACHUSETTS ELECTRIC COMPANY	NORTH MAIN ST	WESTFORD MA	
RELEASE	495 OFF RAMP	BOSTON RD	WESTFORD MA	
RELEASE	MHD FACILITY 49	BOSTON RD	WESTFORD MA	
RELEASE	MHD FACILITY 49	BOSTON RD	WESTFORD MA	
RELEASE	MA ELECTRIC CO	KIRSI CIR	WESTFORD MA	
UST	MASS DPW MAINT DEPOT	BOSTON RD	WESTFORD MA	
UST	FORGE VILLAGE AUTOBODY	N MAIN ST	WESTFORD MA	

Unplottable Report

Site: FORGE VILLAGE AUTO BODY
NORTH MAIN ST WESTFORD MA 01886-2551

Database:
FINDS/FRS

Program Acronyms: MA-EPICS, RCRAINFO
Facility Detail Report URL: http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110008412164
Registry ID: 110008412164
Supplemental Location:
Location Description:
County Name: MIDDLESEX
FIPS Code: 25017
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 05
Census Block Code: 250173182001033
HUC Code: 01070006
EPA Region Code: 01
Site Type Name: STATIONARY
Create Date: 01-MAR-00
Update Date: 29-SEP-11
US/Mexico Border Ind:
Interest Types: CESQG, STATE MASTER
NAICS Codes:
NAICS Code Descriptions:
SIC Codes:
SIC Code Descriptions:
Latitude: 42.597161
Longitude: -71.466309
Datum: NAD83
Coord Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Accuracy Value:
Reference Point:
Source:
Conveyor: REGION01

Site: EXXON STATION
BOSTON POST ROAD & CHELMSFORD WESTFORD MA 01886

Database:
HIS LUST

Spill ID: C88-0572
Site ID: 2-0580
Case Closed: YES
LUST: ---
Incident: TANK REMOVAL
Other Incident:
Source: U.S.T.
Other Source:
Petroleum/Hazardous: PETROLEUM
Virgin/Waste: VIRGIN
Material: GASOLINE
Other Material:
Environmental Impact: SOIL

Other Env. Impact:
Contaminated Soil:
CAS # for Hazardous Waste:
PCB Ranges: -----
Reported Quantity Spilled: NONE
Actual Quantity Spilled: NONE
Reported Units Spilled: -----
Actual Units Spilled: -----
Spill Date: 19881114
Spill Time: 02:00PM
Rport Date: 19881114
Rport Time: 02:00PM
Spill Info. First Entered: 19890115
Spill Info. Last Entered: 19940812
First IR Form: 19881114
Staff Lead: BRESNAHAN, C
Category:
Days For Case: 403
Person Prepared Report:
Contractor: NOT USED
Referral Divisions: SA
Notifier:
Notifier Phone:

Site: MASS DPW
BOSTON RD. WESTFORD MA 01886

Database:
HIS LUST

First IR Form: 19920821
Staff Lead: DUNNE, B
Category:
Days For Case: 1
Person Prepared Report:
Contractor: NOT USED
Referral Divisions: NO
Notifier: JEFF LECLAIRE (603) 672-5
Notifier Phone:
Spill ID: C92-0417
Site ID: 0000
Case Closed: YES
LUST: NO
Incident: -----
Other Incident:
Source: U.S.T.
Other Source:
Petroleum/Hazardous: HAZARDOUS
Virgin/Waste: VIRGIN
Material: TOLUENE
Other Material:
Environmental Impact:
Other Env. Impact:
Contaminated Soil:
CAS # for Hazardous Waste: 00108-88-3
PCB Ranges: NONE
Reported Quantity Spilled: UNKNOWN
Actual Quantity Spilled: UNKNOWN
Reported Units Spilled: -----
Actual Units Spilled: -----
Spill Date:
Spill Time:
Rport Date: 19920824
Rport Time:

Spill Info. First Entered:
Spill Info. Last Entered: 19920901

Site: CYANIDE RELEASE
MAIN ST. WESTFORD MA 01886

Database:
HIS SPILLS

Spill ID: C91-0273
Site ID: 0000
Case Closed: YES
LUST: NO
Incident: -----
Other Incident:
Source: -----
Other Source:
Petroleum/Hazardous: HAZARDOUS
Virgin/Waste: WASTE
Material: OTHER MATERIAL -->
Other Material: CYANIDE
Environmental Impact:
Other Env. Impact:
Contaminated Soil:
CAS # for Hazardous Waste:
PCB Ranges: NONE
Reported Quantity Spilled: UNKNOWN
Actual Quantity Spilled: UNKNOWN
Reported Units Spilled: GALLONS
Actual Units Spilled: GALLONS
Spill Date: 19910523
Spill Time:
Rport Date: 19910523
Rport Time:
Spill Info. First Entered:
Spill Info. Last Entered: 19910924
First IR Form: 19910523
Staff Lead: SCHERER, M
Category:
Days For Case: 1
Person Prepared Report:
Contractor: NOT USED
Referral Divisions: NO
Notifier:
Notifier Phone:

Site: MHD FACILITY 49
BOSTON RD AND RTE 495 WESTFORD MA 01886

Database:
LST

Site No: 3-2010135
Official Notification Date: 12/28/1993
Initial Status Date: 2/24/1995
Release Type: RAO
Category: TWO HR
Phase:
Current Date: 8/4/1995
Location Type: EO350,STATE
ROA Class: A1
Supporting Document URL:
Source: UST

Release Type Desc: (Response Action Outcome): A site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase Desc:
ROA Class Desc: Remedial work was completed and a level of 'no significant risk' has been achieved. A

permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

Site: MHD FACILITY 49
BOSTON RD AND RTE 495 WESTFORD MA

Database:
LUST

RTN: 3-2010135
OFC Town: WESTFORD
OFC Notification: 28-DEC-93
Category: TWO HR
Prim ID:
Current Status: RAO
Current Date: 04-AUG-95
Phase:
RAO Class: A1
OHM: Oil
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Current Status Desc: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

--
Action
--
Date: 14-JUL-94
Chemical: DIESEL FUEL
Amount:
Units:
--
Location
--
Location: EO350
--
Location: STATE
--
Source
--
Source: UST
--
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
--
Action: Immediate Response Action
Status: Oral Approval of Plan or Action
Date: 28-DEC-93
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
--
Action: Immediate Response Action
Status: Written Approval of Plan
Date: 13-SEP-94
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
--
Action: Immediate Response Action
Status: Completion Statement Received
Date: 04-AUG-94
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
--

Action: Immediate Response Action
Status: Status or Interim Report Received
Date: 27-DEC-94
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Date: 06-JAN-94
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 04-AUG-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 28-DEC-93
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Date: 20-JUN-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Date: 29-DEC-93
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Date: 30-DEC-93
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Status: Reportable Release under MGL 21E
Date: 05-MAY-94
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
 --
Chemical
 --

Site: HOME NUTRITIONAL SERVICES INC
 OLD BOSTON SQ WESTFORD MA 01886

Database:
 RCRA GEN

Used Oil Market Burner:
Activity Location: MA
Mailing Address: OLD BOSTON SQ, , WESTFORD, MA, 01886,
Contact Address: OLD BOSTON SQ, , WESTFORD, MA, 01886, US
Land Type: Private
Generator Status Universe: Conditionally Exempt Small Quantity Generator
TSD Activity: N
Epa Handler ID: MAD985275965
Current Site Name: HOME NUTRITIONAL SERVICES INC
Location Street 2:
Contact Name: DAN OGRADY
Contact Email:
Generator Status Universe: CEG
Importer Activity: N
Mixed Waste Generator: N
Transporter Activity: N
Transfer Facility: N
Recycler Activity: N

Onsite Burner Exemption: N
Furnace Exemption: N
Underground Injection Activity: N
Receives Waste From Off Site: N
Used Oil Transporter:
Used Oil Transfer Facility:
Used Oil Processor:
Used Oil Refiner:
Used Oil Burner:
Used Oil Specification Marketer:

--
Owner/Operator Information

Owner/Operator Indicator: CP
Owner/Operator Name: HOME NUTRITIONAL SERVICES INC
Owner/Operator Address: OLD BOSTON SQ WESTFORD MA US 01886
Owner/Operator Phone:
Owner/Operator Type: P
Date Became Current: 19911208
Date Ended Current:

--
Owner/Operator Indicator: CO
Owner/Operator Name: HOME NUTRITIONAL SERVICES INC
Owner/Operator Address: OLD BOSTON SQ WESTFORD MA US 01886
Owner/Operator Phone:
Owner/Operator Type: P
Date Became Current: 20041016
Date Ended Current:

--
NAICS Information

--
Handler Information

--
Date Received: 19880825
Facility Name: HOME NUTRITIONAL SERVICES INC
Classification: Conditionally Exempt Small Quantity

--
Hazardous Waste Information

--
Violation/Evaluation Information

Site: FORGE VILLAGE AUTO BODY
NORTH MAIN ST WESTFORD MA 01886

Database:
RCRA GEN

Used Oil Market Burner:
Activity Location: MA
Mailing Address: N MAIN ST, , WESTFORD, MA, 01886,
Contact Address: N MAIN ST, , WESTFORD, MA, 01886, US
Land Type: Private
Generator Status Universe: Conditionally Exempt Small Quantity Generator
TSD Activity: N
Epa Handler ID: MAD981206618
Current Site Name: FORGE VILLAGE AUTO BODY
Location Street 2:
Contact Name: RONALD CRAWFORD
Contact Email:
Generator Status Universe: CEG
Importer Activity: N

Mixed Waste Generator: N
Transporter Activity: N
Transfer Facility: N
Recycler Activity: N
Onsite Burner Exemption: N
Furnace Exemption: N
Underground Injection Activity: N
Receives Waste From Off Site: N
Used Oil Transporter:
Used Oil Transfer Facility:
Used Oil Processor:
Used Oil Refiner:
Used Oil Burner:
Used Oil Specification
Marketer:

-- --
Owner/Operator Information

Owner/Operator Indicator: CP
Owner/Operator Name: FORGE VILLAGE AUTO BODY
Owner/Operator Address: N MAIN ST WESTFORD MA US 01886
Owner/Operator Phone:
Owner/Operator Type: P
Date Became Current: 19911208
Date Ended Current:

-- --
Owner/Operator Indicator: CO
Owner/Operator Name: RONALD CRAWFORD
Owner/Operator Address: N MAIN ST WESTFORD MA US 01886
Owner/Operator Phone:
Owner/Operator Type: P
Date Became Current: 20041016
Date Ended Current:

-- --
NAICS Information

-- --
Handler Information

-- --
Date Received: 19860521
Facility Name: FORGE VILLAGE AUTO BODY
Classification: Conditionally Exempt Small Quantity
-- --

Hazardous Waste Information

-- --
Waste Code: D001
Waste: IGNITABLE WASTE
-- --

Waste Code: F003
Waste: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
-- --

Waste Code: F005
Waste: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-

ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

--
**Violation/Evaluation
Information**
--

Site: NEW ENGLAND TELE
DEPOT ST WESTFORD MA 01886

Database:
RCRA NON GEN

Epa Handler ID: MAD980510903
Activity Location: MA
Location Street 2:
Contact Name: ALEX MACARTHUR
Contact Email:
Generator Status Universe: N
Importer Activity: N
Mixed Waste Generator: N
Transporter Activity: N
Transfer Facility: N
Recycler Activity: N
Onsite Burner Exemption: N
Furnace Exemption: N
**Underground Injection
Activity:** N
Receives Waste From Off Site: N
Used Oil Transporter:
Used Oil Transfer Facility:
Used Oil Processor:
Used Oil Refiner:
Used Oil Burner:
Used Oil Market Burner:
**Used Oil Specification
Marketer:**
Mailing Address: 99 HIGH ST, , BOSTON, MA, 02110,
Contact Address: 99 HIGH ST, , BOSTON, MA, 02110, US
Land Type: Private
Generator Status Universe: No Report
TSD Activity: N
Current Site Name: NEW ENGLAND TELE

--
Owner/Operator Information

Owner/Operator Indicator: CO
Owner/Operator Name: NEW ENGLAND TELE
Owner/Operator Address: 99 HIGH ST BOSTON MA US 02110
Owner/Operator Phone:
Owner/Operator Type: P
Date Became Current: 20041016
Date Ended Current:

--
NAICS Information

--
Handler Information

--
Date Received: 19810302
Facility Name: NEW ENGLAND TELE

Hazardous Waste Information

--

**Violation/Evaluation
Information**

-- --

Site: MASSACHUSETTS ELECTRIC COMPANY
NORTH MAIN ST WESTFORD MA

Database:
RELEASE

RTN: 3-2015689
OFC Town: WESTFORD
OFC Notification: 06-APR-05
Category: TWO HR
Prim ID:
Current ST: RAO
Current ST Description: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase:
RAO Class: A2
OHM:
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has not been reduced to background.
Current DA: 03-JUN-05

--
Action

--
Action: Immediate Response Action
Status: Oral Approval of Plan or Action
Date: 06-APR-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Date: 21-APR-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 03-JUN-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Action: Response Action Outcome - RAO
Status: Level I - Technical Screen Audit
Date: 30-JUN-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 06-APR-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Status: Reportable Release under MGL 21E
Date: 03-JUN-05
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--
Chemical
--
Chemical: MODF

Amount: 84
Units: GAL
-- --
Location: INDUSTRIAL
-- --
Source
-- --
Source: TRANSFORM
-- --
Location
-- --

Site: 495 OFF RAMP
BOSTON RD WESTFORD MA

Database:
RELEASE

OFC Town: WESTFORD
OFC Notification: 13-AUG-97
Category: TWO HR
Prim ID:
Current ST: RAO
Current ST Description: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase:
RAO Class: A1
OHM: Oil
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Current DA: 09-OCT-97
RTN: 3-2011833

-- --
Action
-- --
Action: Immediate Response Action
Status: Oral Approval of Plan or Action
Date: 13-AUG-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

-- --
Date: 20-AUG-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

-- --
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 09-OCT-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

-- --
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 13-AUG-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

-- --
Date: 13-AUG-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

-- --
Date: 11-SEP-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or

a threat of release has been eliminated.

--

Status: Reportable Release under MGL 21E
Date: 09-OCT-97
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--

Chemical

--

Chemical: DIESEL FUEL
Amount: 50
Units: GAL

--

Chemical: DIESEL FUEL
Amount: 100
Units: GAL

--

Location

--

Location: ROADWAY

--

Source

--

Source: VEHICLE

--

Site: MHD FACILITY 49
 BOSTON RD WESTFORD MA

Database:
 RELEASE

RTN: 3-2011150
OFC Town: WESTFORD
OFC Notification: 01-MAR-96
Category: 120 DY
Prim ID:
Current ST: RAO
Current ST Description: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase:
RAO Class: A2
OHM: Oil and Hazardous Material
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has not been reduced to background.
Current DA: 28-FEB-97

--

Action

--

Date: 15-MAY-97
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--

Date: 03-APR-97
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--

Date: 11-MAR-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.

--

Action: Release Abatement Measure
Status: Written Approval of Plan

Date: 19-DEC-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Action: Release Abatement Measure
Status: Written Plan Received
Date: 26-NOV-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 28-FEB-97
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 01-MAR-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Date: 24-APR-97
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Date: 05-DEC-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Status: Reportable Release under MGL 21E
Date: 01-MAR-96
RAO Class: A permanent solution has been achieved. Contamination has not been reduced to background.
 --
Chemical:
 --
Chemical: BENZO[A]PYRENE
Amount: 1200
Units: PPB
 --
Chemical: BENZ[A]ANTHRACENE
Amount: 1800
Units: PPB
 --
Chemical: BENZ[E]ACEPHENANTHRYLENE
Amount: 1300
Units: PPB
 --
Chemical: TOTAL PETROLEUM HYDROCARBONS (TPH)
Amount: 46000
Units: PPM
 --
Location:
 --
Location: EO350
 --
Location: STATE
 --
Source:
 --
Source: UNKNOWN
 --

Site: MHD FACILITY 49
BOSTON RD WESTFORD MA

Database:
RELEASE

OFC Town: WESTFORD
OFC Notification: 30-OCT-95
Category: TWO HR
Prim ID:
Current ST: RAO
Current ST Description: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase:
RAO Class: A1
OHM: Oil
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

Current DA: 29-DEC-95
RTN: 3-2010978

--
Action: --
--
Action: Immediate Response Action
Status: Oral Approval of Plan or Action
Date: 30-OCT-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Date: 02-NOV-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 29-DEC-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 30-OCT-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Status: Reportable Release under MGL 21E
Date: 29-DEC-95
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Chemical: --
--
Chemical: HYDRAULIC FLUID
Amount: 30
Units: GAL

--
Location: --
--
Location: EO350
--
Location: STATE
--

Source

--
Source: PIPE
--

Site: MA ELECTRIC CO
KIRSI CIR WESTFORD MA

Database:
RELEASE

RTN: 3-2016076
OFC Town: WESTFORD
OFC Notification: 18-JAN-06
Category: TWO HR
Prim ID:
Current ST: RAO
Current ST Description: Release Action Outcome, a site/release where an RAO Statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

Phase:
RAO Class: A1
OHM:
Phase Description:
RAO Class Description: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.
Current DA: 20-MAR-06

--
Action:
--
Action: Immediate Response Action
Status: Oral Approval of Plan or Action
Date: 18-JAN-06
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Date: 26-JAN-06
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Action: Response Action Outcome - RAO
Status: RAO Statement Received
Date: 20-MAR-06
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Action: Release Disposition
Status: Reportable Release under MGL 21E
Date: 18-JAN-06
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Status: Transmittal, Notice, or Notification Received
Date: 20-MAR-06
RAO Class: A permanent solution has been achieved. Contamination has been reduced to background or a threat of release has been eliminated.

--
Chemical:
--
Chemical: MODF
Amount: 3
Units: GAL
--
Location:
--
Location: RESIDENTIAL

--
Location: ROADWAY
--
Source:
--
Source: TRANSFORM
--

Site: MASS DPW MAINT DEPOT
BOSTON RD WESTFORD MA

Database:
UST

Facility ID: 11347
Owner ID: 8114
Owner Name: MASS DEPARTMENT OF TRANSPORTATION
Owner Address: 668 SOUTH AVE
Owner City: WESTON
Owner State: MA
Owner ZIP: 02493
Facility County: MIDDLESEX
Description: Contractor
Work Phone: (800) 973-3800
Fire Department: 17330
UST Over Fill Prevention: Yes
UST Spill Prevention: Yes
Contact Name: THOMAS BRODERICK
Contact Street po: 10 PARK PLAZA
Contact City: BOSTON
Contact State: MA
Contact ZIP: 02106
Inspection Date:
Coc exp:
Opertrain:
Last Update: 18-JUL-97

--- Details ---

Tank ID: 1
Serial #:
Aboveground: N
Capacity: 8000
Contents: Gasoline
Status: Removed
Use: MV
Tank Material: Steel
Tank Type: 1 Wall
Pipe Material: Steel
Pipe Type: Suction: Check Valve @ Tank
Tank Leak Detect: Inventory Record-Keeping
Pipe Leak Detect:
Date Installed: 4/22/1974
Status Date: 7/1/1998

+
Tank ID: 2
Serial #:
Aboveground: N
Capacity:
Contents: Diesel
Status: Removed
Use: MV
Tank Material: Steel
Tank Type: 1 Wall
Pipe Material: Steel
Pipe Type: 1 Wall

Tank Leak Detect:
Pipe Leak Detect:
Date Installed: 4/22/1974
Status Date:
 +
Tank ID: 3
Serial #:
Aboveground: N
Capacity:
Contents: Hazardous
Status: Removed
Use: Other
Tank Material: Steel
Tank Type: 1 Wall
Pipe Material: Steel
Pipe Type: 1 Wall
Tank Leak Detect:
Pipe Leak Detect:
Date Installed: 4/22/1974
Status Date:

Site: FORGE VILLAGE AUTOBODY
 N MAIN ST WESTFORD MA

Database:
 UST

Facility ID: 11352
Owner ID: 5838
Owner Name: RONALD CRAWFORD
Owner Address: 9 DOWNES RD
Owner City: WESTFORD
Owner State: MA
Owner ZIP: 01886
Facility County: MIDDLESEX
Description: Other
Work Phone: (617) 692-3369
Fire Department: 17330
UST Over Fill Prevention: Yes
UST Spill Prevention: Yes
Contact Name: RONALD CRAWFORD
Contact Street po:
Contact City:
Contact State: MA
Contact ZIP:
Inspection Date:
Coc exp:
Opertrain:
Last Update:

--- Details ---

Tank ID: 1
Serial #:
Aboveground: N
Capacity: 4000
Contents: Gasoline
Status: Removed
Use:
Tank Material: Steel
Tank Type:
Pipe Material:
Pipe Type:
Tank Leak Detect:
Pipe Leak Detect:
Date Installed: 5/8/1968

Status Date:

+

Tank ID: 2
Serial #:
Aboveground: N
Capacity: 4000
Contents: Gasoline
Status: Removed
Use:
Tank Material: Steel
Tank Type:
Pipe Material:
Pipe Type:
Tank Leak Detect:
Pipe Leak Detect:
Date Installed: 5/8/1968
Status Date:

+

Tank ID: 3
Serial #:
Aboveground: N
Capacity: 4000
Contents: Gasoline
Status: Removed
Use:
Tank Material: Steel
Tank Type:
Pipe Material:
Pipe Type:
Tank Leak Detect:
Pipe Leak Detect:
Date Installed: 5/8/1968
Status Date:

Appendix: Database Descriptions

Ecolog Environmental Risk Information Services Ltd (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List:

NPL

National Priorities List (Superfund)-NPL: EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Oct 25, 2013

National Priority List - Proposed:

PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Oct 25, 2013

Delisted NPL:

DELISTED NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Government Publication Date: Oct 25, 2013

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS:

CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

CERCLIS - No Further Remedial Action Planned:

[CERCLIS NFRAP](#)

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens:

[CERCLIS LIENS](#)

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA (Superfund) lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Mar 2013

RCRA CORRACTS- Corrective Action:

[RCRA CORRACTS](#)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Feb 11, 2014

RCRA non-CORRACTS TSD Facilities:

[RCRA TSD](#)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Feb 11, 2014

RCRA Generator List:

[RCRA GEN](#)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10).

Government Publication Date: Feb 11, 2014

RCRA Non-Generators:

[RCRA NON GEN](#)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Feb 11, 2014

Federal Engineering Controls-ECs:

[FED ENG](#)

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 30, 2014

Federal Institutional Controls- ICs:

[FED INST](#)

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Jul 30, 2014

Emergency Response Notification System:

[ERNS 1982 TO 1986](#)

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System:

[ERNS 1987 TO 1989](#)

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System:

[ERNS](#)

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 9, 2014

Brownfield Database:

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 16, 2014

State

Solid Waste Facilities:

SWF/LF

The Solid Waste Facility Master List provides information on landfills/dumping grounds, handling/transfer facilities, and combustion facilities. These solid waste operations in Massachusetts require site assignment and permitting by MassDEP's Bureau of Waste Prevention under 310 CMR 16.000 & 19.000.

Government Publication Date: Feb 27, 2014

Leaking Underground Storage Tanks (LUST):

LUST

Sites that are within the Waste Site Cleanup Notifications/Reportable Releases Database that have a UST listed as source.

Government Publication Date: Sep 5, 2014

Leaking Storage Tanks (LST):

LST

Records of Tank Related Leaks and Spills made available by the Massachusetts Department of Environmental Protection (DEP). When a release occurs from a storage tank or system, the owner/operator must notify the DEP. This database contains a listing of releases and spills from tanks and/or tank systems both above and underground.

Government Publication Date: Mar 6, 2014

Historic Leaking Underground Storage Tanks that occurred prior to October 1st

HIS LUST

1993:

The Spills Database was the release notification tracking system for spills that occurred prior to October 1, 1993. This information should be considered to be primarily of historical interest since all of the listed spills have either been cleaned up or assigned new tracking numbers and moved to the databases described above. Note that these files are considered a permanent version of the Spills Database and are unlikely to be updated.

Government Publication Date: Prior to Oct 1, 1993

Leaking Aboveground Storage Tanks (LAST):

LAST

Sites that are within the Waste Site Cleanup Notifications/Reportable Releases Database that have a AST listed as source.

Government Publication Date: Sep 5, 2014

Historic Leaking Aboveground Storage Tanks that occurred prior to October 1st

HIS LAST

1993:

The Spills Database was the release notification tracking system for spills that occurred prior to October 1, 1993. This information should be considered to be primarily of historical interest since all of the listed spills have either been cleaned up or assigned new tracking numbers and moved to the databases described above. Note that these files are considered a permanent version of the Spills Database and are unlikely to be updated.'

Government Publication Date: Prior to Oct 1, 1993

Underground Storage Tanks (UST):

UST

The Underground Storage Tank (UST) Program is a major component of the Massachusetts groundwater resource protection effort. This is a listing of all underground storage tanks registered in Massachusetts.

Government Publication Date: Jul 2013

Aboveground Storage Tanks (AST):

AST

Registered Aboveground Storage Tanks. The actual location of the tank is not disclosed by the state, and will only have information on the owner of the tank.

Government Publication Date: Jul 2013

Sites with Activity and Use Limitations:

AUL

The approximate location of oil or hazardous material release/disposal sites where an AUL has been filed. An AUL provides notice of the presence of oil and/or hazardous material contamination remaining at the location after a cleanup has been conducted pursuant to Chapter 21E and the MCP. The AUL is a legal document that identifies activities and uses of the property that may and may not occur, as well as the property owner's obligation and maintenance conditions that must be followed to ensure the safe use of the property. The complete AUL is filed at the County Registry of Deeds office for the respective City/Town.

Government Publication Date: Sep 5, 2014

Completed Brownfields Covenants:

BROWNFIELDS

List of sites with Completed Brownfields Covenants made available by the Massachusetts Department of Environmental Protection (MassDEP). Under Massachusetts law, M.G.L. c. 21E provides the Attorney General's Office with the authority to enter into Brownfields Covenant Not to Sue Agreements for brownfields sites not addressed by the automatic liability protections.

Government Publication Date: Mar 7, 2014

Waste Site Cleanup Notifications/Reportable Releases:

RELEASE

This database contains information on all releases of oil and hazardous materials that have been reported to the Massachusetts Department of Environmental Protection (MassDEP). Includes the Release Tracking Number (RTN), address and status of all regulated Waste Site Cleanup notifications of over 33,000 records, including State Hazardous Waste Sites (SHWS, State Equivalent CERCLIS Sites).

Government Publication Date: Sep 5, 2014

Tribal

No Tribal standard environmental record sources available for this State.

County

No County standard environmental record sources available for this State.

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index:

FINDS/FRS

The US Environmental Protection Agency (EPA)'s Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.

Government Publication Date: Aug 16, 2014

Toxics Release Inventory (TRI) Program:

TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: 1987-2012

Hazardous Materials Information Reporting System:

HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Mar 16, 2014

National Clandestine Drug Labs:

NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Feb 4, 2014

Inventory of Open Dumps, June 1985:

ODI

The Resource Conservation and Recovery Act (RCRA of the Act) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

EPA Report on the Status of Open Dumps on Indian Lands:

IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

State

Historic Spills that occurred prior to October 1st 1993:

HIS SPILLS

The Spills Database was the release notification tracking system for spills that occurred prior to October 1, 1993. This information should be considered to be primarily of historical interest since all of the listed spills have either been cleaned up or assigned new tracking numbers and moved to the databases described above. Note that these files are considered a permanent version of the Spills Database and are unlikely to be updated.

Government Publication Date: Prior to Oct 1, 1993

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries". All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and were included as reference.

Phase I Environmental Site Assessment - Appendix c

Unofficial Property Record Card - Westford, MA

General Property Data

Parcel ID 059 0047 0000	Account Number
Prior Parcel ID --	
Property Owner TOWN OF WESTFORD POLICE STATION	Property Location 51 -53 MAIN ST
	Property Use PubSafe-OTH
Mailing Address 55 MAIN ST	Most Recent Sale Date 8/24/1970
	Legal Reference 0075-068
City WESTFORD	Grantor OSGOOD
Mailing State MA Zip 01886	Sale Price 1
ParcelZoning RA	Land Area 30.000 acres

Current Property Assessment

Card 1 Value	Building Value 454,500	Xtra Features Value 28,300	Land Value 999,600	Total Value 1,482,400
Total Parcel Value	Building Value 4,914,400	Xtra Features Value 28,300	Land Value 999,600	Total Value 5,942,300

Building Description

Building Style FIRE STATION	Foundation Type SLAB-COMM	Flooring Type CONCRETE
# of Living Units 1	Frame Type WOOD	Basement Floor N/A
Year Built 1975	Roof Structure GABLE	Heating Type FORCED H/A
Building Grade AVERAGE	Roof Cover ASPHALT	Heating Fuel OIL
Building Condition Average	Siding ALUMINUM	Air Conditioning 50%
Finished Area (SF) 3272	Interior Walls MINIMUM	# of Bsmt Garages 0

Number Rooms 0

of Bedrooms 0

of Full Baths 2

of 3/4 Baths 0

of 1/2 Baths 0

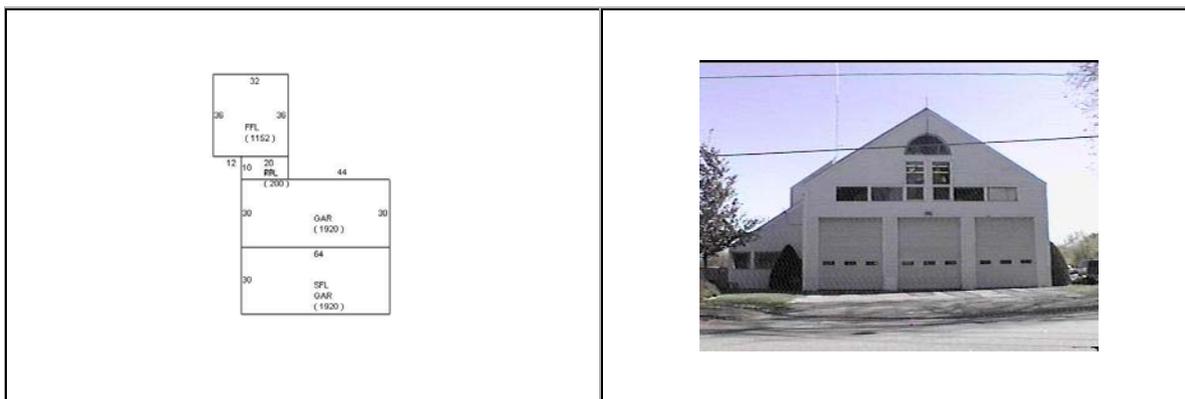
of Other Fixtures 14

Legal Description

Narrative Description of Property

This property contains 30.000 acres of land mainly classified as PubSafe-OTH with a(n) FIRE STATION style building, built about 1975 , having ALUMINUM exterior and ASPHALT roof cover, with 1 unit(s), 0 room(s), 0 bedroom(s), 2 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranted.



FIRE INSURANCE MAP RESEARCH RESULTS

Date: 2014-11-06

Order Number:20141106023
51 Main St, Westford, MA, 01886

ERIS has searched our in-house collection of close to 1 million Fire Insurance Maps for the address at 51 Main St, Westford, MA, 01886.

Please note that no information was found for your site or adjacent properties.

If you have any questions regarding the enclosed information, please do not hesitate to contact us.

Individual Fire Insurance Maps for the subject property and/or adjacent sites are included with the ERIS environmental database report to be used for research purposes only and cannot be resold for any other commercial uses other than for use in a Phase I environmental assessment.

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WESTFORD

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