

Note: The attached facility evaluation contains preliminary cost estimates. Be aware, the cost estimates are based on a proposed square footage of a typical commercial facility and should not be utilized for any firm plans or construed as budget numbers. There are no firm plans, construction costs are currently very volatile, and there is much that needs to be done before any construction cost estimates can be considered for budgeting purposes.



## MEMORANDUM

TO: Mr. Don Estes, Chief, East Clinton Fire District

FROM: Keith Scofield, RA

DATE: 12.15.21

SUBJECT: Fire Station Evaluation Study  
Clinton Corners, N.Y.

Don,

Please find enclosed a copy of the Fire Station Evaluation Study for the East Clinton Fire District.

Please call if you have any questions or comments.

Thank you.

Cc: file

## I. INTRODUCTION:

The East Clinton Fire District is seeking a viable solution to their overcrowded fire station. An analysis of their current station has been made to see if there are options for expanding and renovating the existing firehouse, which was built in 1957 or to build a new fire station within the district owned property adjacent to the current station at 9 Firehouse Lane in the Town of Clinton, NY. The building contemplated to be replaced is the only station for the district and is located geographically in the southeastern portion of the district boundaries where the predominant volume of emergency calls occurs.

There has been a building committee formed by the membership through the president of the Board of Fire Commissioners for the task to evaluate the existing fire station building configuration, spatial needs and site plan configuration for an addition and alteration or a new fire station. We as the architects have been given the task to assist the building committee in their charge. The building will be defined via drawings to show concepts that will best provide the Department and District a building which will best fit the needs of both the Department and District now and for the foreseeable future.

This document is a base of the current status of the Fire District property and an assessment need study which denotes the spatial needs for the contemplated new fire station building.

## II. BUILDING INVENTORY:

Based on a field visit and working with Chief Estes, we have ascertained the current building inventory of the East Clinton Fire District and noted the major spaces within the building.

Currently the station house that they work out of consists of the following:

1. East Clinton Fire District Headquarters  
9 Firehouse Lane  
Clinton Corners, NY 12514  
Approximately 4,905 S.F. w/ 1,695 S.F. pole barn storage  
One story (Type III & Type V Construction)  
Built 1957 with additions / alterations in 1980, 1990

Spaces within the building include:

(4) Bay Apparatus Room.....	2726.6 s.f.
(3) Bay Storage Pole Barn.....	1695.6 s.f.
Mechanical Room .....	94.7 s.f.
Chief's Office .....	158.8 s.f.
Equipment Storage .....	145.6 s.f.
Janitors Closet w/ Shower .....	30.0 s.f.
Male/Female Restrooms ...	77.3 / 64.6 s.f.
Meeting Hall / Lounge .....	784.7 s.f.
Kitchen .....	300.8 s.f.
Water Filtration Closet .....	13.2 s.f.
Attic Storage .....	2726.6 s.f.

### III. APPARATUS INVENTORY:

The following is the current inventory of the East Clinton Fire District:

9 Firehouse Lane Fire Station:

1. (1) Ambulance (38-71)
2. (1) Pumper (38-12)
3. (1) Tanker (38-38)
4. (1) Mini Attack Truck (38-63)
5. (1) Brush Truck (38-61)
6. (1) Decon-Rehab Unit (38-68)
7. (1) Haz-Mat / Support Trailer
  - (1) Antique Pumper
  - (1) Antique Hose Cart

### IV. PERSONNEL INVENTORY:

The Clinton Volunteer Fire Department consists of approximately 25 active Fire and EMS members. The officers include the following:

#### **Fire District Officers**

- (5) Commissioners
- (1) Commissioner Secretary

#### **Firematic Line Officers**

- (1) Chief
- (2) Assistant Chiefs
- (1) Captain
- (2) Lieutenant

#### **EMS Officers**

- (1) Captain
- (2) Lieutenant

#### **Decon-Rehab Unit Officers**

- (1) Captain
- (2) Lieutenant

#### **Company Civil Officers**

- President
- Vice President
- Secretary
- Treasurer

Note: There are no paid firematic positions within the Fire District currently.

## V. EXISTING STATION 1 PHYSICAL CONDITIONS:



East Clinton Fire Station – 9 Firehouse Lane

The East Clinton Volunteer Fire Department headquarters is located the Hamlet of Clinton Corners. This is the only fire station for the Fire District. This building is located on the end of the road at 9 Firehouse Lane on a lot that is approximately .72 acres. The structure is a single-story concrete masonry block (CMU) and steel building. The fire station was erected in 1957 and was built around the original platform of the Clinton Corners train station which ran through the property from 1880 and was disbanded in 1938. The fire station's original design was a single-story structure using CMU walls, structural steel & bar joists roof framing and cementitious panel boards for roof decking, covered by a ballasted roof system. In 1980, the ballasted roof was in need of replacement. It was decided to add a wood gable roof truss with asphalt shingles and span the building from front to rear. This area is now used for storage and is accessed by a wooden stair located at the rear of the building. In 1990, the pole barn addition was added to the south side of the station. It is assumed the septic system is located on the north side of the building. The water service comes into the building on the south side of the men's toilet room. The current condition of the building is fair and has served the fire district well for over 65 years.



Clinton Corners Train Station

The site on which the fire station building sits is strategically placed within the southeastern portion of the fire district where the predominant call volume occurs. The single emergency egress point to access the main highway, Salt Point Turnpike has a terrible site line in both directions. The fire station building site has an irregular shape. Unfortunately, that makes any expansion and alterations of the building challenging. Less than 50 ft. to the north of the fire station property, the Fire District owns a 4.3 acre parcel which has two points of egress.

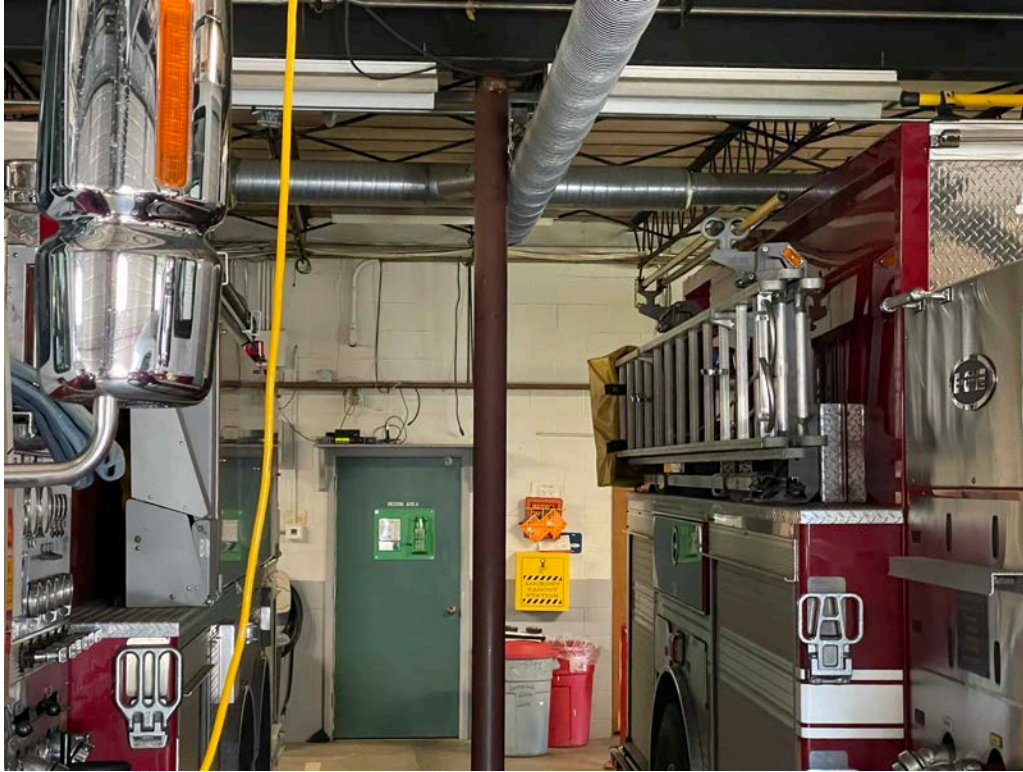
The fire station is in fair condition, but as an emergency service building, it is nearing the end of its useful life as a firehouse without undergoing major changes. The building has apparent drawbacks which are as follows:

1. The current overhead door widths (11'-11") and heights (10'-0") are very tight for modern apparatus (it appears less than 3-inch clearance in some cases to obstructions) The industry standard for fire stations are specified with 12' to 14' wide or 12' to 14' overhead doors.

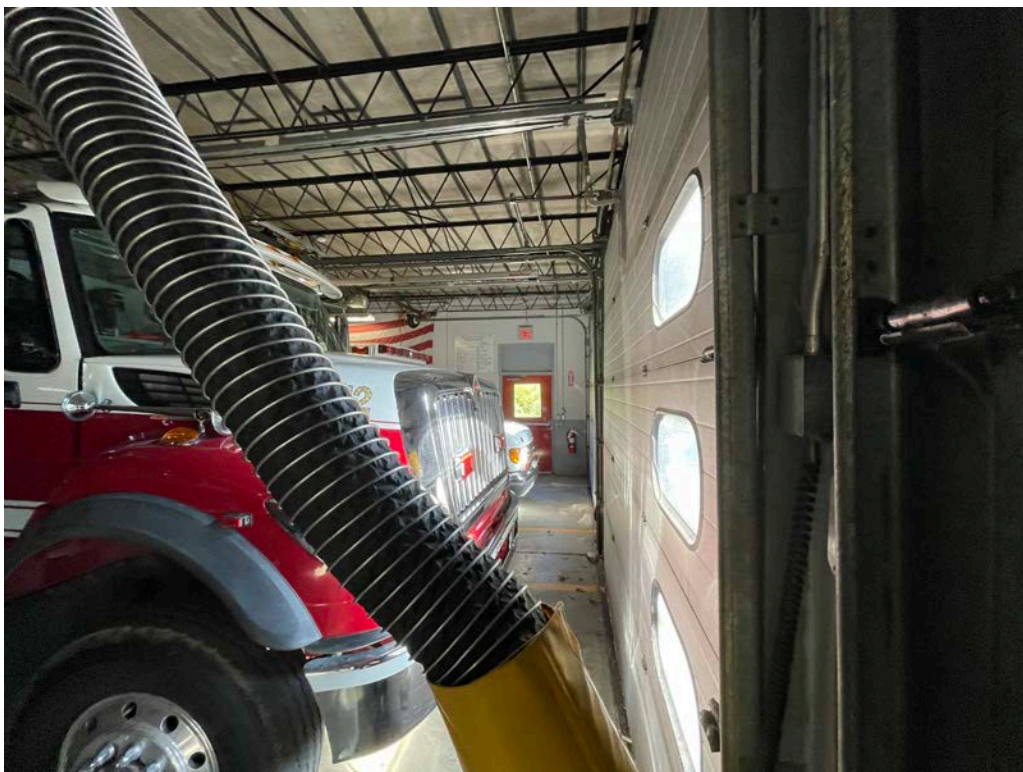




2. There is no significant headroom above the equipment. This limits the District's ability to acquire modern equipment since most of the newer equipment is based on a minimum door height of 12' to 14'.



3. There is a clear lack of clearance around all apparatus for maintenance. NFPA recommends a 5 ft working area around all sides of the apparatus.







Lack of clearance around apparatus

4. The ceiling and bar joist structure above the apparatus bays is quite low for working over a piece of apparatus.



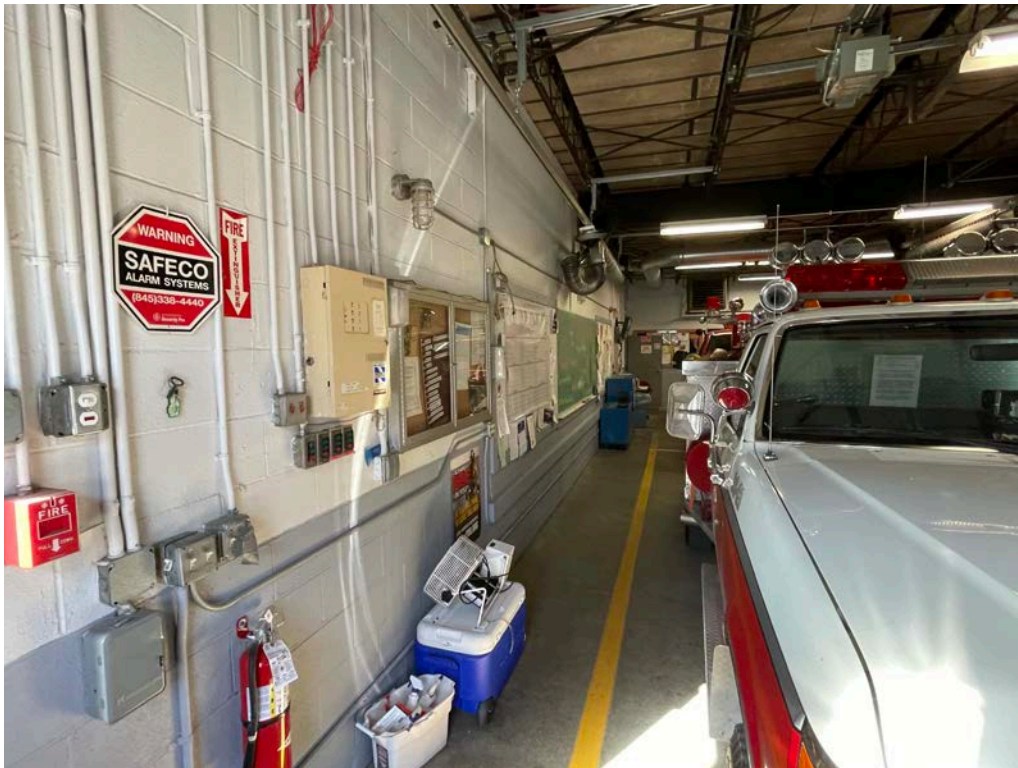
Lack of headroom to access top of hose bed.



5. With only (4) apparatus bays and (7) Emergency Vehicles, Vehicles like the Haz-Mat Trailer are sitting in the Pole Barn and need to have electric heaters inside to keep vital equipment warm. The smaller vehicles are double stacked in the bays. NFPA allows stacked vehicles when there are overhead doors on the front and rear of the bay.



Haz-Mat Trailer



Mini Attack and Brush Truck stacked tandem.

6. There is a Nederman Vehicle Exhaust System that is not being utilized as per NFPA 1500

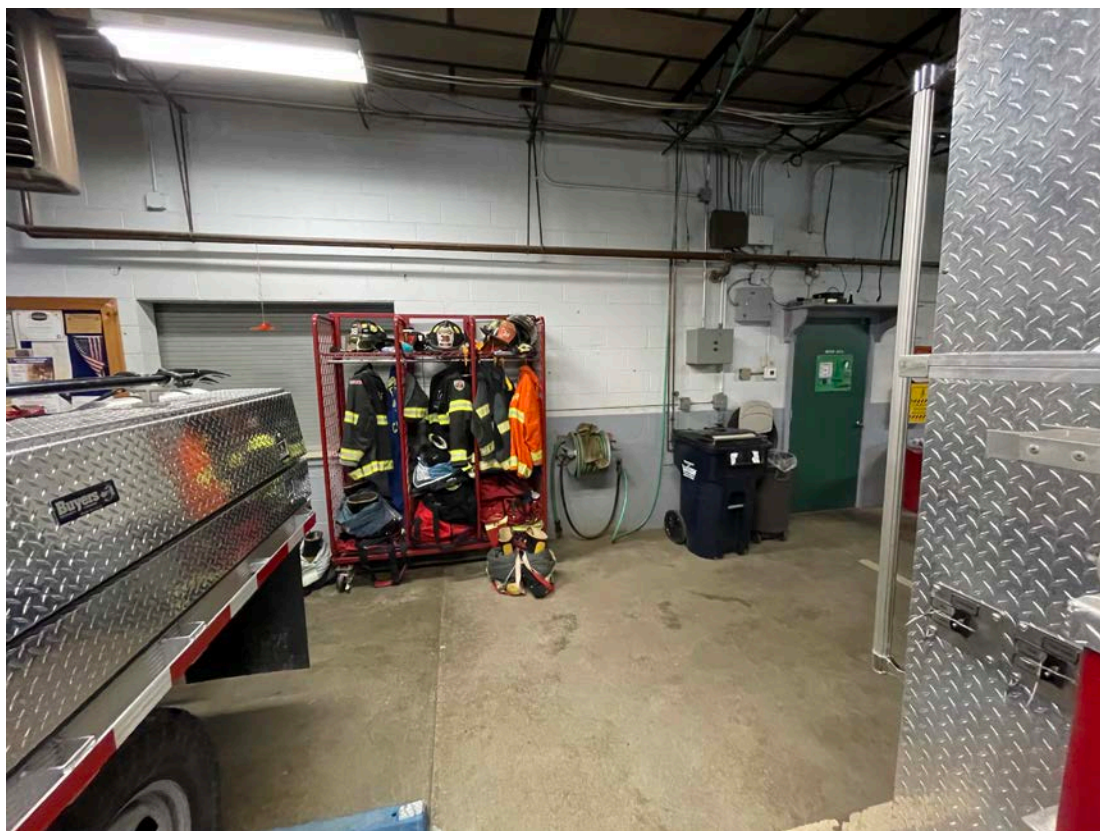


Lack of Tail Pipe Exhaust Usage

7. Lack of Support Rooms add to clutter in the Apparatus Bay.



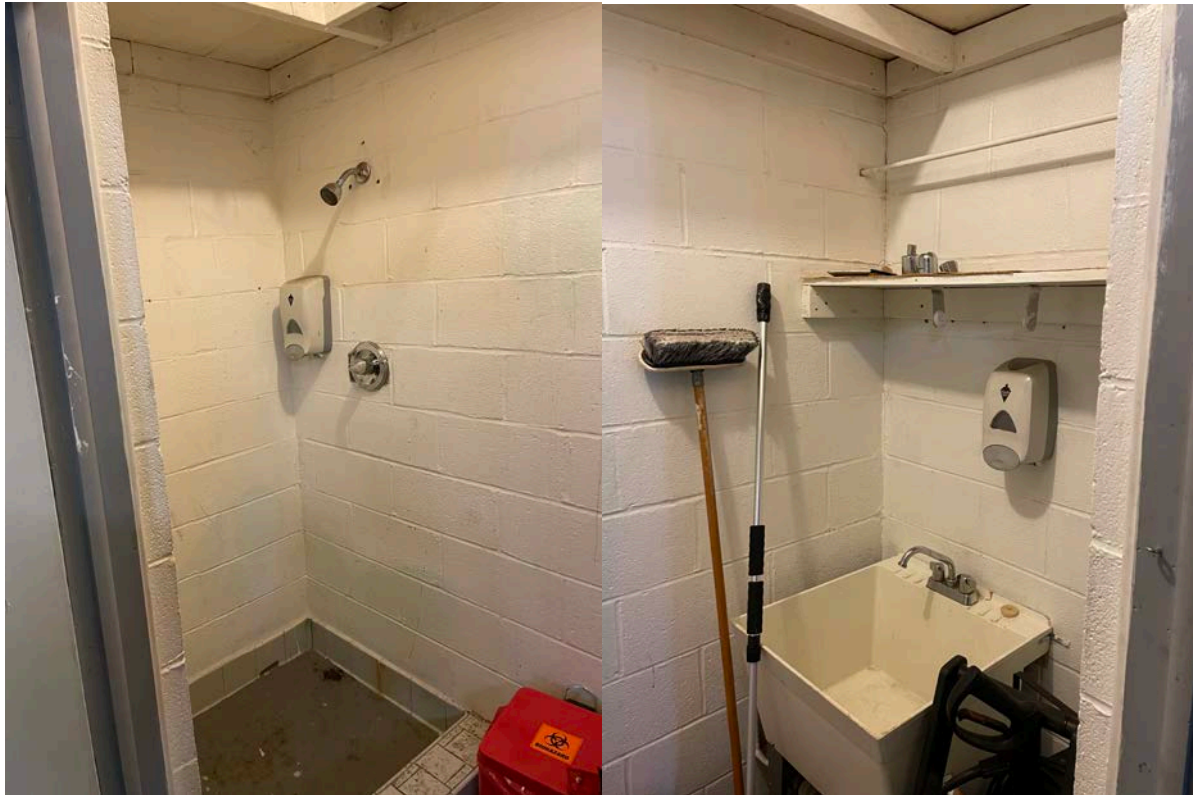




The only Gear Rack in the Fire Station



8. There is a lack of a Decon and equipment clean up area. The shower located in the custodial closet is ok for general use, but a true Decon shower should be accessible from the station's exterior.



Custodial Closet Shower

9. There is a lack of a gear washing area. (OSHA Required)  
10. There is a lack of accessibility to the Meeting Room (ADA)



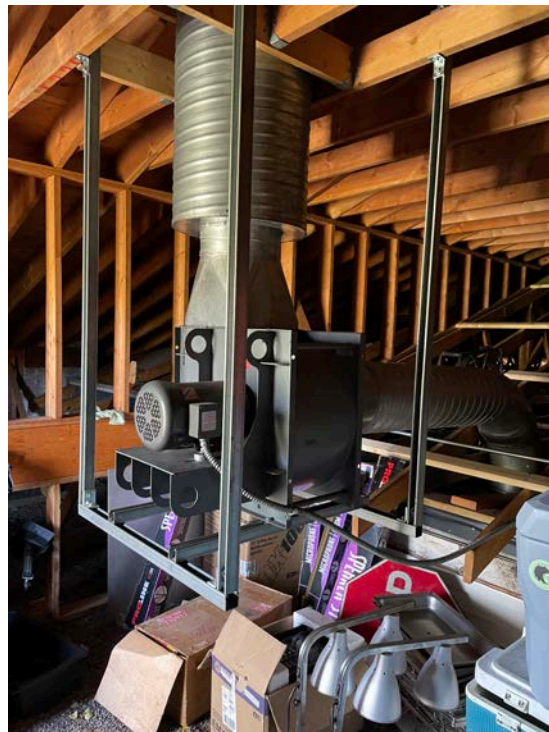
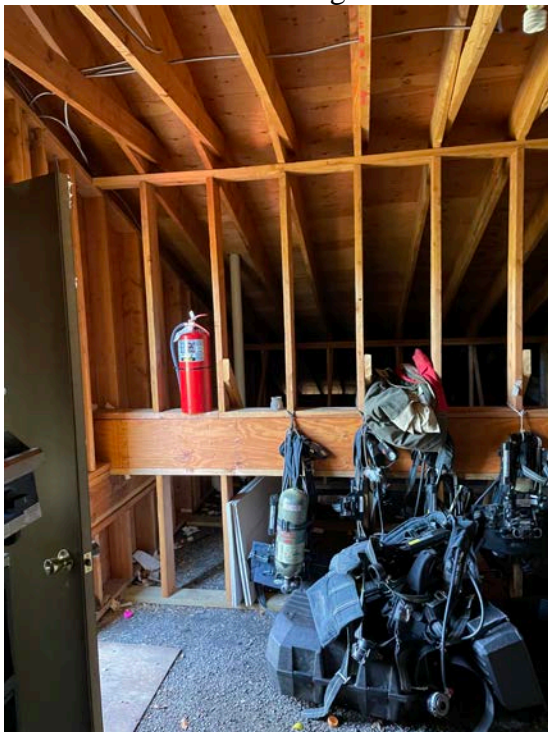
No ADA Compliant Ramps or Lifts to Reach the Meeting Room Floor.



11. There is no apparent readily accessible hose storage in the apparatus room. It's outside under the pole barn
12. There is a general lack of Firematic and EMS Storage though out the building.



EMS and Firematic Storage



Equipment in Non-Climate Controlled Attic Storage Space



13. The kitchen stove is not equipped with a code compliant hood / exhaust and Ansul System.  
Lack of makeup air.



Kitchen Stove and Hood

14. The Kitchen floor has 9x9 asbestos tile.



Asbestos Floor Tile

15. The corridor to the Kitchen and Toilet Rooms does not meet ADA Clearances at the door approaches. Corridor widths and stair widths are not up to current standards for egress. (less than 5'-0")



Corridor Clearances

16. Both of the restrooms do not meet current ADA requirements for access and fixture approaches, along with a lack of ADA grab bars. The entrance doors into each of the restrooms measure only 2'-4". The door to the Men's toilet room does not open 90 degrees. Current requirements are 3'-0".



ADA Clearance issues in Toilet Rooms

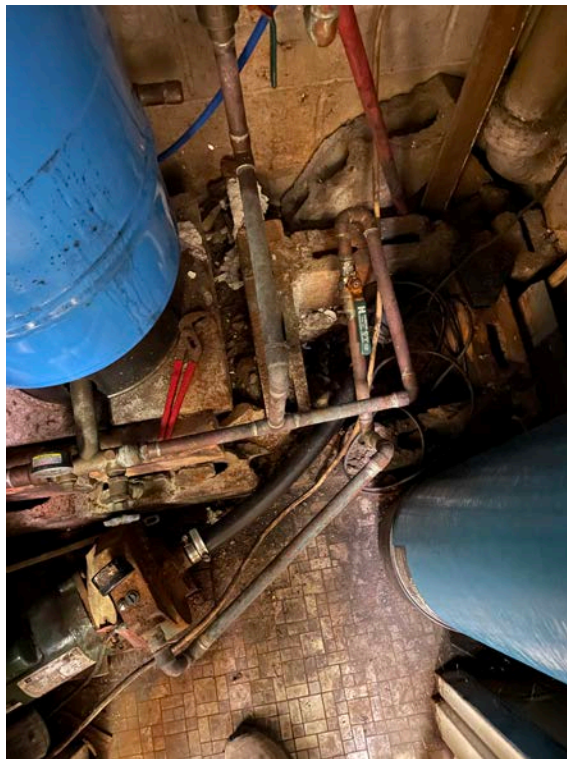


17. There is a general lack of insulation throughout the building making it energy inefficient
18. The mechanical systems are antiquated and inefficient. (No air conditioning or continuous ventilation to occupied spaces.)
19. The equipment in the electrical room is also outdated and should be updated. There is an electrical service wire lying on the roof on the north end of the building.



Low hanging service wire to the Weather Head / Gutter Clutter

20. There is a jet well pump in the water treatment closet. A jet pump is indicative that there is a shallow well. With the number of water bottles present, does the well water have an issue for public consumption? How does this effect the ice machine and Kitchen use?



Water Treatment & Pump

21. There is a lack of office space. One Chief / Officers office is shared by all.



22. Some of the existing vinyl replacement windows have lost their seals.
23. Daylight can be seen in the weather stripping and seals on the hollow metal doors. The north side hollow metal door has rot.



Door Rot

24. The wood roof truss over build appears structurally sound. There are some deficiencies in the design. Some vent piping did not continue through the wood roof deck. There is the lack of a smoke stop for 3,000 s.f. of attic space to help minimize smoke and flame spread across the full attic. No attic insulation was installed. The attic storage room (S-2 Classification) over the kitchen and toilet room (B Classification) does not meet code. The code requires a 2-hour separation between the S-2 & the B Occupancy in Non-Sprinklered Buildings.



Vent pipe terminated in the attic.



S-2 over B Occupancy

TABLE 508.4

REQUIRED SEPARATION OF OCCUPANCIES (HOURS)<sup>f</sup>

OCCUPANCY	A, E		I-1 <sup>a</sup> , I-3, I-4		I-2		R <sup>a</sup>		F-2, S-2 <sup>b</sup> , U		B <sup>e</sup> , F-1, M, S-1		H-1		H-2		H-3, H-4		H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A, E	N	N	1	2	2	NP	1	2	N	1	1	2	NP	NP	3	4	2	3	2	NP
I-1 <sup>a</sup> , I-3, I-4	—	—	N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP	2	NP
I-2	—	—	—	—	N	N	2	NP	2	NP	2	NP	NP	NP	3	NP	2	NP	2	NP
R <sup>a</sup>	—	—	—	—	—	—	N	N	1 <sup>c</sup>	2 <sup>c</sup>	1	2	NP	NP	3	NP	2	NP	2	NP
F-2, S-2 <sup>b</sup> , U	—	—	—	—	—	—	—	—	N	N	1	2	NP	NP	3	4	2	3	2	NP
B <sup>e</sup> , F-1, M, S-1	—	—	—	—	—	—	—	—	—	—	N	N	NP	NP	2	3	1	2	1	NP
H-1	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	NP	NP	NP	NP	NP	NP
H-2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	1	NP	1	NP
H-3, H-4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 <sup>d</sup>	NP	1	NP
H-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

N = No separation requirement.

NP = Not Permitted.

## Separation of Occupancies

25. The exterior gutter and leader system should be replaced. Non properly draining gutters will lead to long term wall and foundation damage around the sides and rear of the building.







Gutters and Leaders

### **Life Safety and Accessibility**

- In general, there is a lack of compliance throughout the building with the Americans with Disabilities Act (ADA).
- Questionable make-up air.
- No accessible access to the meeting room.
- Toilet Rooms are not ADA or ANSI compliant.
- Kitchen hood does not meet code.
- The 48" wide main floor corridor does not allow for ANSI compliance.
- The door hardware does not meet ANSI compliance.
- Handrails on stairs do not have proper 12" extension past the tread nosing at the top and bottom of the stair run.
- Improper attic storage space.

### **Energy and Mechanical**

- Minimal building insulation. The flat roof is estimated at R-10 for the building age. The exterior masonry walls estimated at R-3.5.
- Some of the 3/8" double glazed units appear to have lost their seal.
- The electrical equipment and requirements of the facility are outdated and need to be updated.
- The existing sanitary sewage disposal system is reputedly located on the north end of the building. With that being said, the existing sewage disposal system may not be on the Fire District's property and any expansion or necessary upgrades may not be possible.
- The location of the existing well is not known. If the well is not located on the southern part of the property, then the proximity could be closer to the sewage disposal systems which may also hamper the approval of a new sewage disposal system.
- Ground water from the roof drainage may damage the foundation and bearing walls on the eastern side along the railroad embankment. compliance.

### **General**

- Grossly inadequate storage
- Asbestos floor tiles
- Inadequate laundry facilities
- Inadequate office space

### **Apparatus Bay**

- Inadequate clearance around the fire apparatus
- Inadequate headroom to access the top of the fire apparatus
- Inadequate storage space off the bays to reduce the clear floor area issues
- Overhead doors are too small

### **Summary**

There are points noted above that can be corrected in a renovation of the existing building occurred but items such as apparatus bay ceiling heights, bay areas, door heights, and meeting hall size are not attainable through renovation without demolition and reconstruction. These items are critical to the usefulness of the firehouse and present uncomfortable and dangerous conditions to the members of the department.



## VI. NEW FIRE HOUSE SPATIAL REQUIREMENTS:

The proposed new firehouse would be based on a one-story pre-engineered building similar to the station in Falls Village, CT. The building would be segmented into two distinct areas; Firematic Area and Member Area, Social Area. The social area would require separation from the firematic due to the fact the general public may use the area and need not have access to the firematic or member areas.

### Floor Plan Requirements:

Apparatus Bay.....	4,815 sf
Toilet.....	96 sf
J.S.C.....	22.5 sf
Compressor Room .....	88 sf
SCBA Maintenance Room.....	88 sf
Tool Room.....	90 sf
Decon Room.....	91 sf
Gear Laundry .....	120 sf
Radio / Officers Room.....	144 sf
Male/Female Restrooms.....	393 sf
Chief Office.....	122 sf
Commissioner's Office.....	248 sf
Company Office.....	144 sf
EMS Office.....	144 sf
Storage Room.....	96 sf
File Room.....	96 sf
J.S.C. Supplys.....	41 sf
Mechanical Room.....	409 sf
Kitchen.....	380 sf
Pantry.....	75 sf
Multi-Purpose Room.....	2,280 sf
Table & Chair Storage Room.....	160 sf
 Floor Area - Circulation and Structure.....	 1,527.5 sf
 Total First Floor Area.....	 11,670 sf

## VII. CONSIDERATIONS

The following are considerations for the basis for a new firehouse building:

1. A new building would provide for the next 50+ years for the district.
2. The new building would provide a safer access to Salt Point Turnpike.
3. The new building should be flexible in that apparatus locations can change as per the Chief at the time. Flexible bays should be employed as possible.
4. The Multi-Purpose Room should be able to have a function at which a majority of the members and their guests could attend at one time. There should be adequate kitchen facilities for large events.

5. The building should be ADA compliant.
6. Proper size bays in depth, width and height should be designed for modern equipment.
7. There is a need for proper storage for all users of the building.
8. Proper office space should be allocated to provide the required services and to have all records on site for access as required by the department officials.
9. The new building should be energy efficient in its design to minimize energy costs.
10. Mechanical/Electrical equipment should be designed for not only today but the potential future needs of the department.
11. Bays are to be sized to accommodate activities such as apparatus storage, inspection, washing, preparation, maintenance and gear racks.
12. Provide for better OSHA standards compliance.
13. The firehouse shall be a central focus in the community for the following functions:

Firematic: Fire Seminars, Chiefs Association meetings, Fireman's Company functions, Drills and Training, Civic Events, Emergency Shelter, Voting location if necessary, Community Organizations, Educational Seminars, Funerals

#### VIII COST ESTIMATE:

Please note that enclosed is a cost estimate is based on a square footage estimate related to current construction trends. The cost estimate is based on drawings which are currently in a Conceptual Design stage and will change as the project design becomes more defined. The preliminary costs can be defined as follows:

LMV Cost Estimate.....\$ 2,917,500 - \$ 3,209,250  
with 15% Prevailing Wage Increase \$ 3,690,637.50

Soft Costs to be determined once a clear direction has been chosen and shall include approximate Engineering, Architectural, Legal, and Finance costs.

#### IX DESIGN/CONSTRUCTION TIME LINE:

Site Engineering/Planning Board Site Plan Approval.....4-6 months  
Design Development.....1-2 months  
Construction Documents.....2-3 months  
Bidding.....1 ½ months  
Construction.....9-10 months

The Design Development/Construction Document phases and the Planning Board process can proceed concurrently.

The project can proceed and be complete anywhere from 14 ½ to 17 ½ months from the time of the first Planning Board submission. The Planning Board and Site Plan approval process could take longer pending review by the Planning Board and requirements set forth by them.



