

Firehouse Land and Design Thru Bid Funding

Articles 1 & 2 – March 9, 2026 STM

FSBC Public Forum
January 28, 2026



Photo by John Galla

www.firenews.org



Roadmap



Why Do We Need a New Firehouse?



What Work has the Town
Done to Date?

Site Selection
Conceptual Design and
Space Needs Assessment



What Will We be Voting
on March 9, 2026

Article 1: Land Purchase
Article 2: Design and Bid
Fees



Q&A



Why Do We Need a New Firehouse?

Boxborough Shifted from Rural Agricultural Town to Suburban Community Over Past 60 Years



Farming of all types declined after World War II

Commuting to jobs outside of Boxborough increased, spurred by regional highway construction including Interstate 495 (early 1960s)

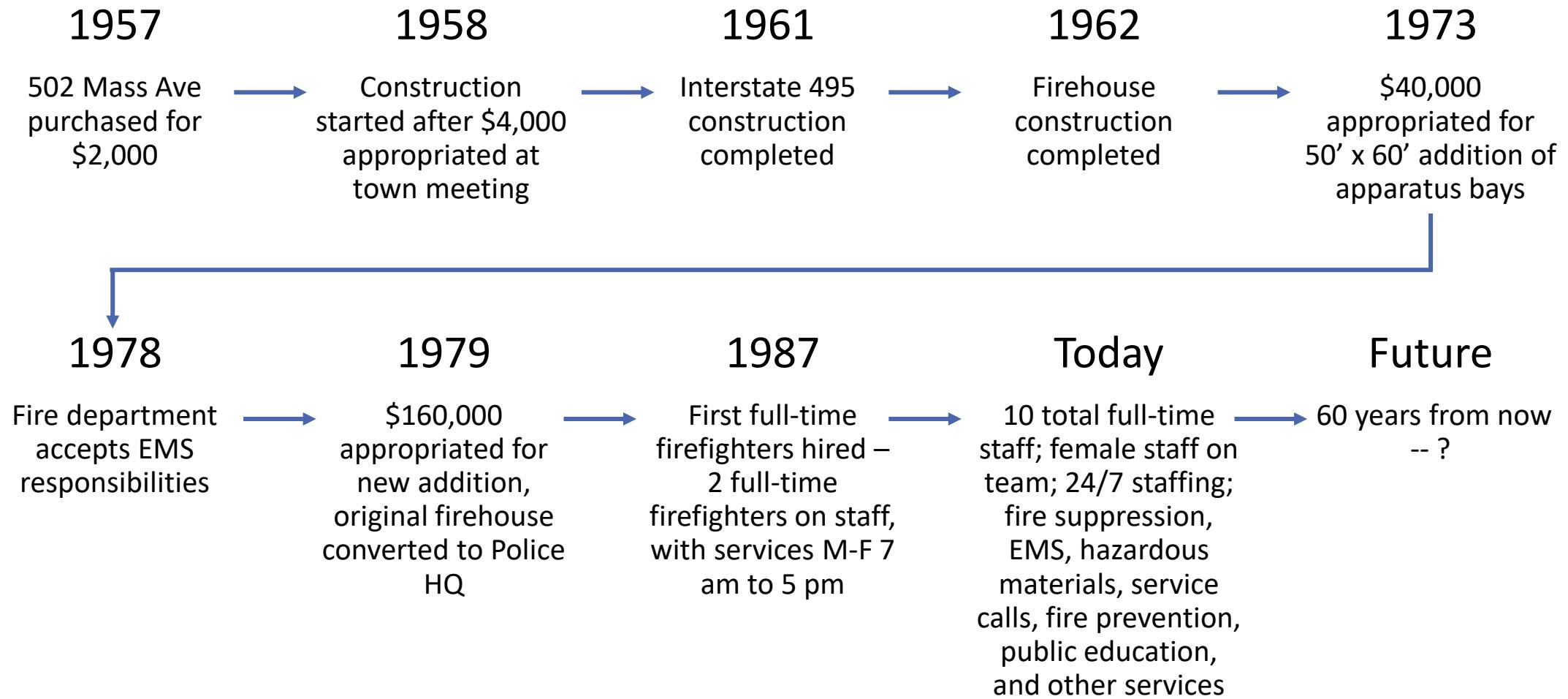
Old farms were divided to make new house lots, and residential growth skyrocketed through the end of the 20th century

Population doubled in the 1960s, doubled again in the 1970s – fewer than 800 residents in the 60's to more than 5,500 residents today

Beginning in the 1960s, a number of multifamily buildings were built to the west of 495

The 1990s saw an increase in office park construction

Boxborough Firehouse Has Not Kept Up with Changes Over Past 64 Years

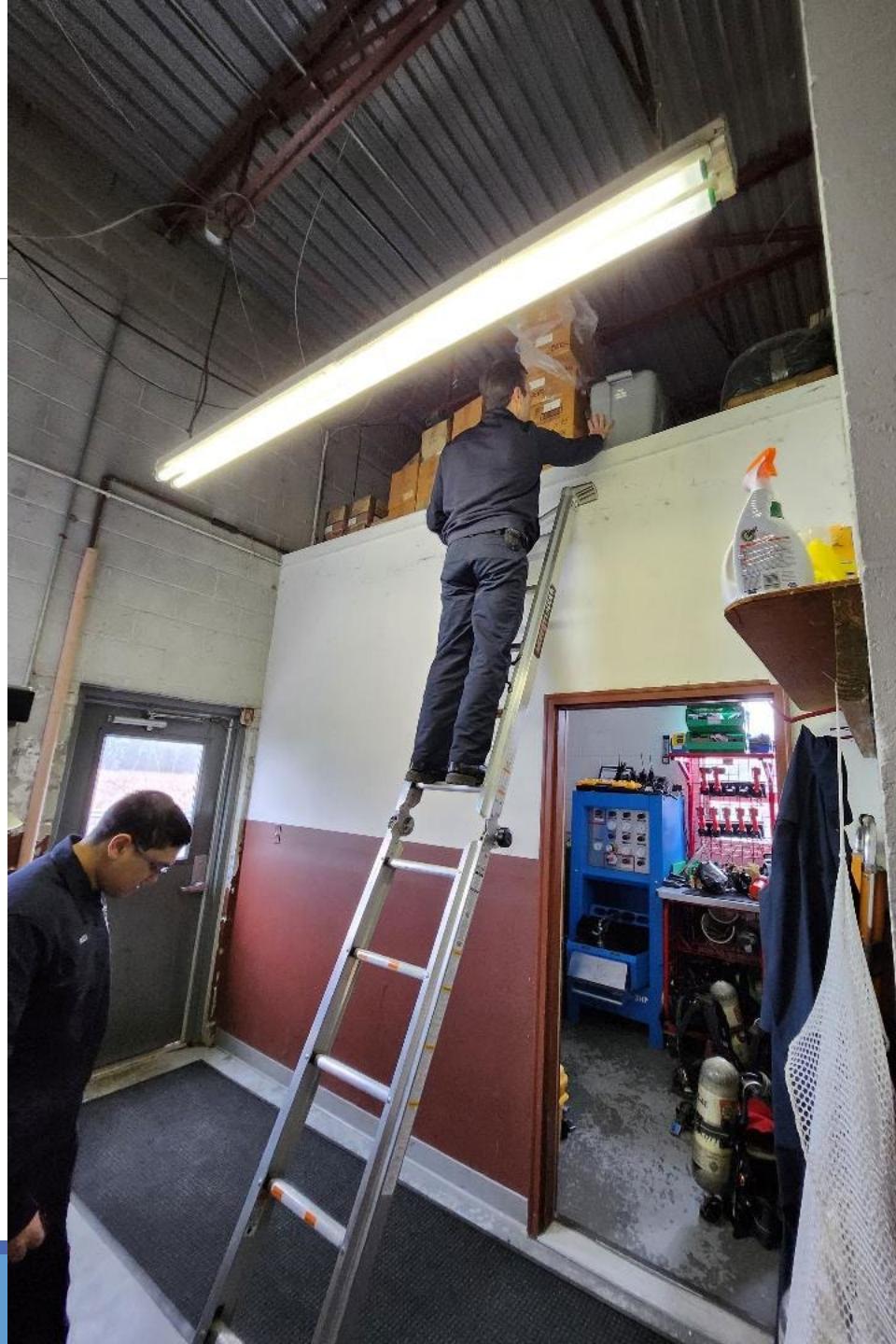


Current Firehouse has Significant Physical & Occupational Safety Concerns for Our Personnel

- **Inadequate space & facilities** to properly clean, decontaminate & maintain gear and equipment
- **Lack of general security** including unsecured electrical panels, file server and network equipment
- Building is **non-compliant with current NFPA regulations** and currently recognized safety standards



Staff Safety Concerns

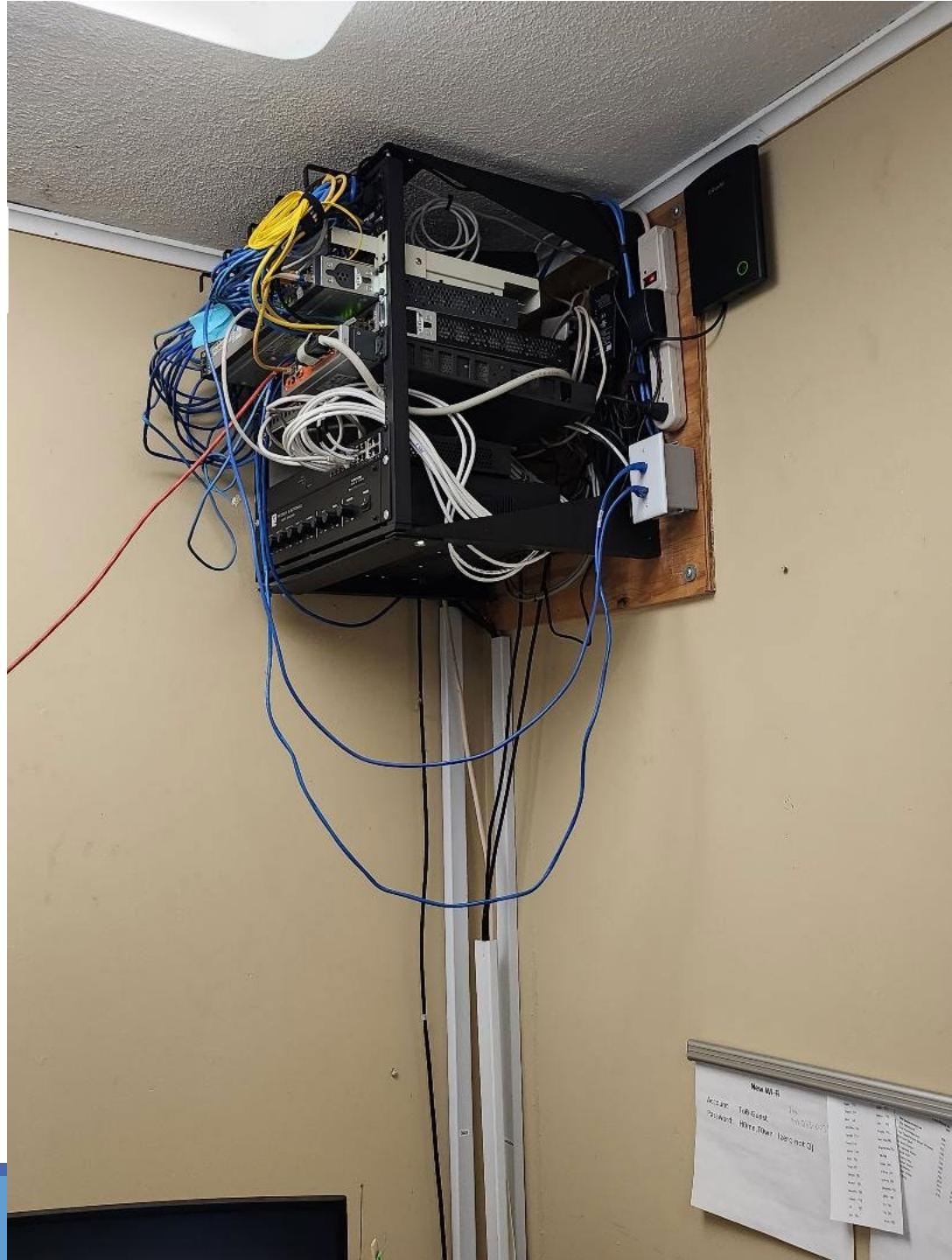


Apparatus Bay Space Concerns





Equipment Safety Concerns



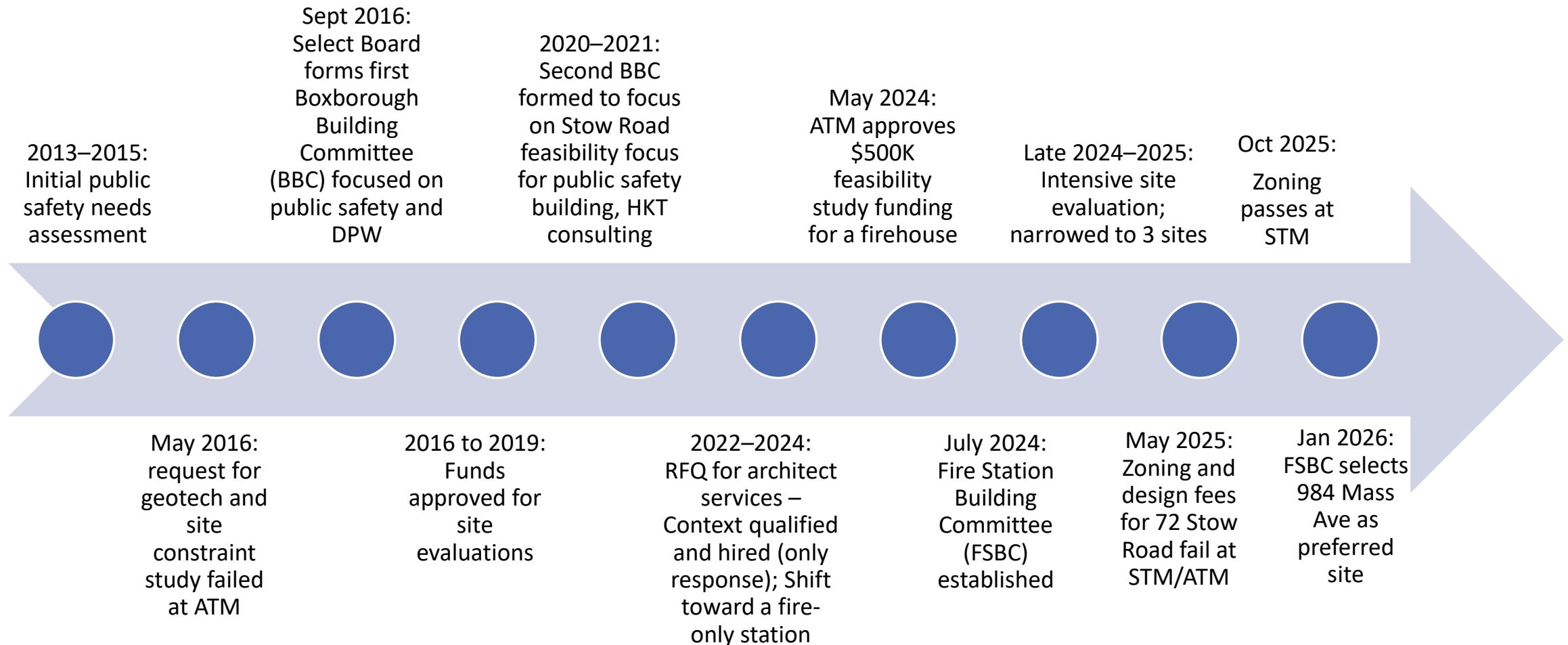
Privacy Concerns for Staff





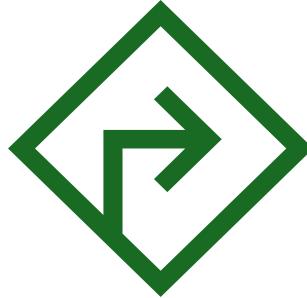
What Work has the
Town Done To Date?

We Have Spent 14 Years on This Initial Phase



Over 20 Public Info Events In Past 19 Months

- Oct 2024 – 4 forums
- Dec 2024 – 1 forum
- Jan 2025 – 1 forum
- Jan 2025 – Site visits (72/502)
- Feb 2025 – 2 forums
- Mar 2025 – 2 forums
- Apr 2025 – 2 forums
- June 2025 – Fifer's Day Table
- Sep 2025 – 2 forums
- Sep 2025 – FTM Info Session
- Sep 2025 – Blanchard Fall Festival
- Oct 2025 – Village Day Table
- Jan 2026 – 2 forums
- Jan 2026 – Winterfest
- Feb 2026 – STM Info Session



Site Selection

Various Committees Have Assessed 20+ Properties

126 Mass Ave

Hagar Land
near School
and Library

502 Mass Ave

577 Mass Ave

593 Mass Ave

Middle Rd
near Town
Hall

72 Stow Rd

700 Mass Ave

750-832 Mass
Ave

871 Mass Ave

276 Middle Rd

296 Middle Rd

886 Mass Ave

975 Mass Ave

984 Mass Ave

1223 Mass
Ave

1300 Mass
Ave

1320 Mass
Ave

1414 Mass
Ave

40
Cunningham
Rd

Beaver Brook
Campus

The Current FSBC Assessed 5 Properties In-depth on 14 Criteria

Round 1: Fall 2024 to Spring 2025

- 502 Massachusetts Avenue
- 72 Stow Road

Round 2: Summer 2025 to Winter 2026

- 502 Massachusetts Avenue
- 72 Stow Road
- 750-832 Massachusetts Avenue
- 984 Massachusetts Avenue
- 1300 Massachusetts Avenue

January 2026
FSBC
Unanimously
Selected 984
Mass Ave;
Supported by
Select Board and
Finance
Committee



Conveniently located on Mass Ave



Has flexibility to fit the program and functions of the Fire Department



Location on Mass Ave located well to serve the needs of the more densely populated areas of Town



Avoids abutter concerns at 72 Stow Rd and minimizes potential costly legal and construction delays



Negates resident concerns about a traffic light at intersection of Middle/Stow Roads and Mass Ave



Allows us to begin addressing the hazardous living/working conditions at the current firehouse, avoiding temporary space needs



Conceptual Design & Space Needs Assessment

Requirements and Standards Influence Station Layout, Features, and Size



Legally Required (binding law)

Massachusetts State Building Code (780 CMR)
Massachusetts Fire Code (527 CMR)
AAB Accessibility Code (521 CMR)
MA energy code requirements
Local zoning and planning rules



Federal Requirements

OSHA-based safety expectations
ADA requirements
USFA safety guidance



Fire Industry/NFPA Standards

NFPA 1500
NFPA 1581
NFPA 1851
NFPA 1710/1720

Reasons Modern Firehouses Need More Space Today Compared to 60 Years Ago

- Demands of the work
- Staff and safety code requirements
- Facility code requirements and best practices

Demands of Work Influencing Design



Increased call volume, especially EMS – nationally and in Boxborough EMS accounts for more than half of all incidents



Expanded apparatus fleet and larger vehicles to meet diversified needs require larger bays and circulation areas



Expanded required training needs, as well as community education and safety support



Administrative and technology demands including rooms for IT infrastructure, radio systems, data servers, emergency operations center, and advanced communication systems



Increased storage needs due to complex equipment (hazmat gear, rescue equipment, hose rack storage, EMS supplies) required by code

Staff and Safety Needs Influencing Design

Dedicated decontamination rooms required by code – cancer-prevention standards require separate gear storage, decontamination showers, SCBA wash equipment, & gear-washing/gear-drying equipment and areas

Separate, ventilated turnout gear rooms to prevent contamination risks, required by code

Increased personnel and staffing, growing from a small volunteer force to a staffed professional force

Need for gender-inclusive spaces including bathrooms and bunk spaces, required by code

Need for health and fitness rooms for firefighter wellness

Private sleeping quarters needed to reduce sleep deprivation

Other Facility Requirements/ Best Practices Influencing Design

- Limited hydrants in Boxborough
- Disaster-resilient construction requirements for essential facilities per building code
- Security and controlled-access facilities
- Separate parking for staff/operations and public for safety
- Emission control systems require diesel exhaust capture systems by code
- Backup power systems for reliability at all times
- Support for emerging technologies such as EV charging and specialized maintenance
- Modern building codes and accessibility standards

Town Worked with Consultants to Estimate Program Requirements and Size

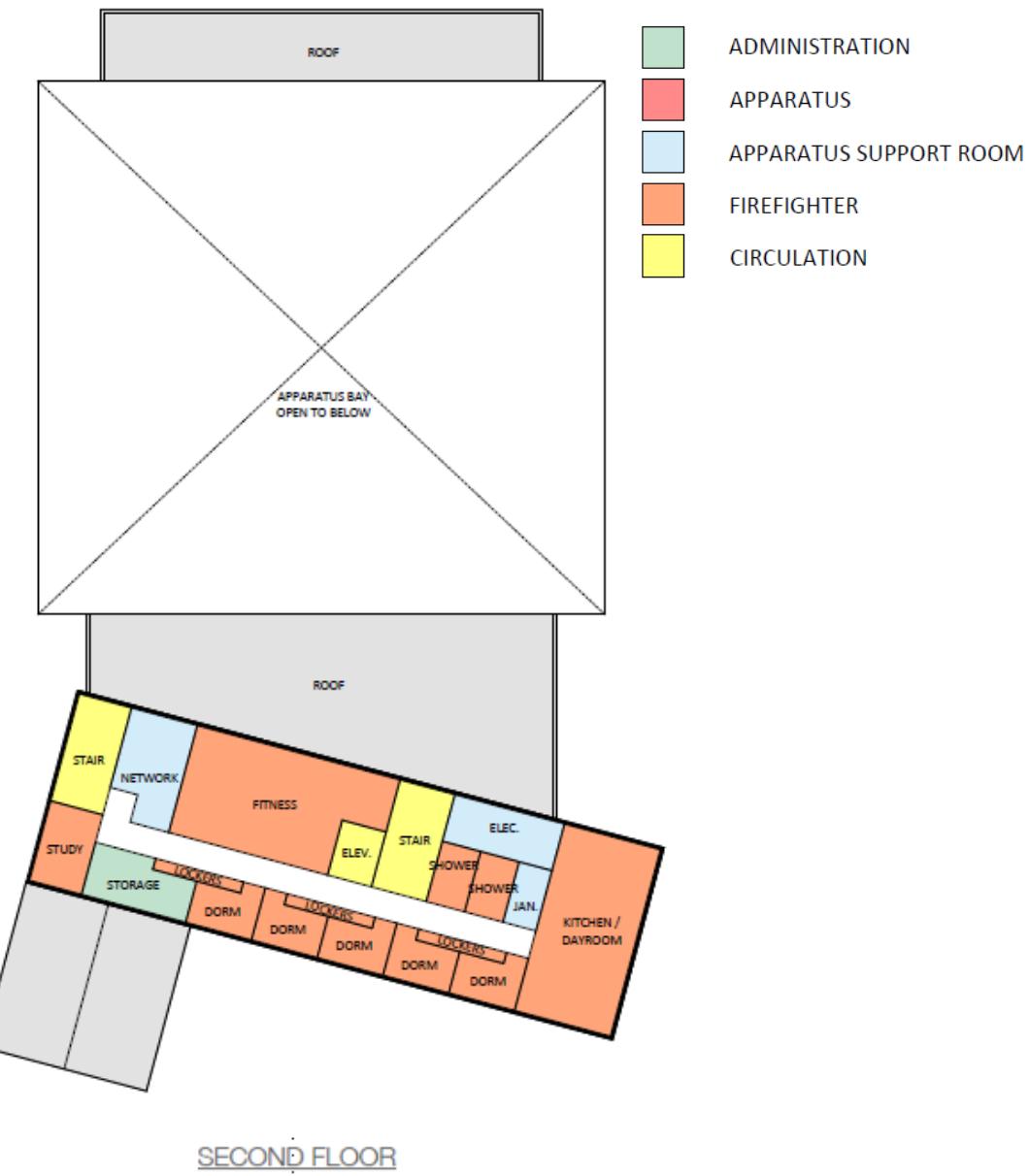
Program requirements and size assessed 3x over past 10 years – estimates within 2% of each other

Considered current and future staffing, equipment and operational needs

Needs assessment suggested need for a 24,000 GSF Firehouse

Conceptual design work has space down to 20,800 GSF (13% reduction)

More specific design could reduce size further



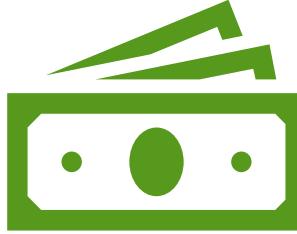
0' 25' 50' 100'

N.

BOXBOROUGH FIRE HQ - CONCEPTUAL SITE PLAN

Firehouse Conceptual Design Spaces

| Firehouse Spaces | Concept Design SF | % of Design |
|---|-------------------|-------------|
| Apparatus Bay | 8,827 | 54% |
| Gear Storage and Decontamination | 1,089 | 7% |
| BERC Storage | 243 | 1% |
| Equipment and Other Storage | 1,167 | 7% |
| Building Mechanicals | 726 | 4% |
| FD Office Space | 1,121 | 7% |
| FD Staff Conference Room | 222 | 1% |
| Public Entry & Triage Space | 376 | 2% |
| Emergency Operations Center/Training Room | 896 | 5% |
| Firefighter Living Quarters | 1,208 | 7% |
| Fitness Room | 590 | 4% |
| Net Sq. Feet | 16,465 | |
| Grossing Factor | 26.33% | |
| Gross Sq. Feet | 20,800 | |



What Will We Be Voting on March 9, 2026

Article 1: Purchase of Property at 984 Mass Ave for New Firehouse

Requesting \$2,400,000

To purchase property to allow design of a new firehouse

- Design of a new firehouse is site-specific, for prudent investment in design we must own the location
- Owning the location provides full access for all on-site testing needed
- 984 came up as a possible firehouse location in Oct 2025, but the owner may not wait beyond March Special Town Meeting
- We have spent significant time studying sites and we need to move the process forward so we have a new firehouse soon

Article 1: Purchase of 984 Mass Ave

Estimated Tax Impact

| | FY26 | FY27 | FY28 | FY29 | FY30 | FY31 |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| \$2,400,000 | | \$148,800 | \$148,800 | \$148,800 | \$148,800 | \$148,800 |
| Town Value* | \$1,823,822,745 | \$1,915,013,882 | \$2,010,764,576 | \$2,111,302,805 | \$2,216,867,945 | \$2,327,711,343 |
| Tax per \$1,000 | \$0.00 | \$0.08 | \$0.07 | \$0.07 | \$0.07 | \$0.06 |
| Avg house value* | \$933,800 | \$980,490 | \$1,029,515 | \$1,080,990 | \$1,135,040 | \$1,191,792 |
| Tax per average house – annual | \$0 | \$76 | \$76 | \$76 | \$76 | \$76 |

Assumptions: Principal and interest combined are 6.2% of overall debt over 30 years; Average house value increases 5% per year; Town value increases 5% per year; Full impact in FY27 - this may not happen.

Article 2: New Firehouse Design & Bid Funding

Requesting \$2,765,910

To design and bid a firehouse at 984 Mass Ave

- Design (3 phases: Schematic Design, Design Development, Construction Documents)
- Prepare construction drawings, specifications and cost estimates
- Pre-qualify general contractors and file subcontractors, as required per MGL Ch 149 when construction estimate is \$10M or more
- Bid the construction in accordance with MGL Ch 149 requirements
- Determine the lowest responsible general bid for a new firehouse to bring to a future Town Meeting

Article 2: New Firehouse Design & Bid Funding

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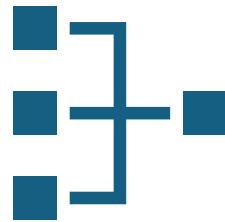
Article 2: Firehouse Design & Bid Funding

Estimated Tax Impact

| | FY26 | FY27 | FY28 | FY29 | FY30 | FY31 |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| \$2,765,910 | | \$171,486.42 | \$171,486.42 | \$171,486.42 | \$171,486.42 | \$171,486.42 |
| Town Value* | \$1,823,822,745 | \$1,915,013,882 | \$2,010,764,576 | \$2,111,302,805 | \$2,216,867,945 | \$2,327,711,343 |
| Tax per \$1,000 | \$0.00 | \$0.09 | \$0.09 | \$0.08 | \$0.08 | \$0.07 |
| Avg house value* | \$933,800 | \$980,490 | \$1,029,515 | \$1,080,990 | \$1,135,040 | \$1,191,792 |
| Tax per average house – annual | \$0 | \$88 | \$88 | \$88 | \$88 | \$88 |

Assumptions: Principal and interest combined are 6.2% of overall debt over 30 years; Average house value increases 5% per year; Town value increases 5% per year; Full impact in FY27 - this may not happen.

We Will Design in Three Phases



Schematic Design



Design Development



Construction Documents

Schematic Design (SD) – High-level design phase — establishes the project vision



Defines the big ideas: overall layout, massing, site orientation, adjacencies, and basic functional relationships



Explores alternative concepts through sketches, diagrams, and preliminary floor plans



Initial cost estimating begins using rough quantities and benchmarks



Owner decisions focus on direction, not details—selecting a preferred concept to advance

Design Development (DD) – Refines the chosen concept into a coordinated building design



Major systems are defined: structural layout, mechanical/electrical/plumbing (MEP) strategies, envelope systems, materials



Plans, elevations, and sections are developed with real dimensions and realistic design intent



Coordination across disciplines (architectural, structural, MEP, civil, landscape) becomes central



Updated cost estimates reflect real systems and selections



Owner decisions are detail-oriented, confirming materials, systems, and performance expectations

Construction Documents (CD)

– Final technical documents used for bidding, permitting, and building.

- **Full, detailed drawings and specifications** are produced—dimensions, details, schedules, product requirements
- **Coordinated engineering information** is locked in so contractors can price and build accurately
- **Code compliance is finalized**, and documents are prepared for permit submission
- **Bid packages** are created, enabling competitive pricing
- **Contractor receives precise instructions** for fabrication, installation, and construction sequencing

Massachusetts' DBB process for **public building construction** is tightly regulated under **M.G.L. c.149, §§44A–44J**

Steps we will take include:

We Will Use MA Design/Bid/Build (DBB) Process

- Prepare final designs, specifications and bid documents for competitive bidding, including detail for all trades
- Advertise the project bid (Central Register, newspaper, COMMBUYS)
- Pre-qualify contractors (responsibility includes certification, past performance, financial stability, and proper sub-bid usage)
- Conduct filed sub-bid process for required trades (over \$25K must comply with prevailing wage and OSHA training requirements)
- Ensure all contractor labor will comply with Prevailing Wage Rates as set specifically for the project by the MA Department of Labor Standards
- Receive General Contractor Bids using approved sub-bids
- Open & evaluate bids (determine lowest responsible, eligible bidder)
- Following voter approval, award contract (bonding, prevailing wage, OSHA training)
- Construct the project & administer contract (designer and OPM oversight)

We Will Bring Construction Request to a Future Town Meeting for Approval

- High-level conceptual estimate is approximately \$32.5 million
- During design phase, we will work to reduce the cost
- Design and bid phase will result in the lowest responsible actual bid
- Firehouse construction would be funded through a 30-year bond

A Yes Vote Would Support Your Fire Department and Your Town

Need for a new firehouse first identified in 2013; Select Board has been working on this for nearly 15 years

Building costs typically escalate 4% to 5% per year (see side table from Vertex)

Delays will only cost more

Now is the time to take the next step forward

| Actual Construction Escalation 2016 to 2025 | |
|---|-------------------|
| Year | Escalation Factor |
| 2016 | 4.8% (from 2015) |
| 2017 | 5.0% |
| 2018 | 5.6% |
| 2019 | 5.5% |
| 2020 | 1.8% |
| 2021 | 1.9% |
| 2022 | 8.0% |
| 2023 | 6.0% |
| 2024 | 6.0% |
| 2025 | 5.0% |
| Avg | 5.0% |



Q&A
