

# 72 Stow Road Firehouse Design and Bid Funding

ARTICLE 2



Photo by John Galla

[www.firenews.org](http://www.firenews.org)



# Article 2:

## 72 Stow Road Firehouse Design & Bid Funding

Requesting \$2,622,445

To design and bid a firehouse at 72 Stow Road

- Design (3 phases: Schematic Design, Design Development, Construction Documents)
- Prepare construction drawings, specifications and cost estimates
- Pre-qualify general contractors and filed 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 prior to Spring 2026 Town Meeting



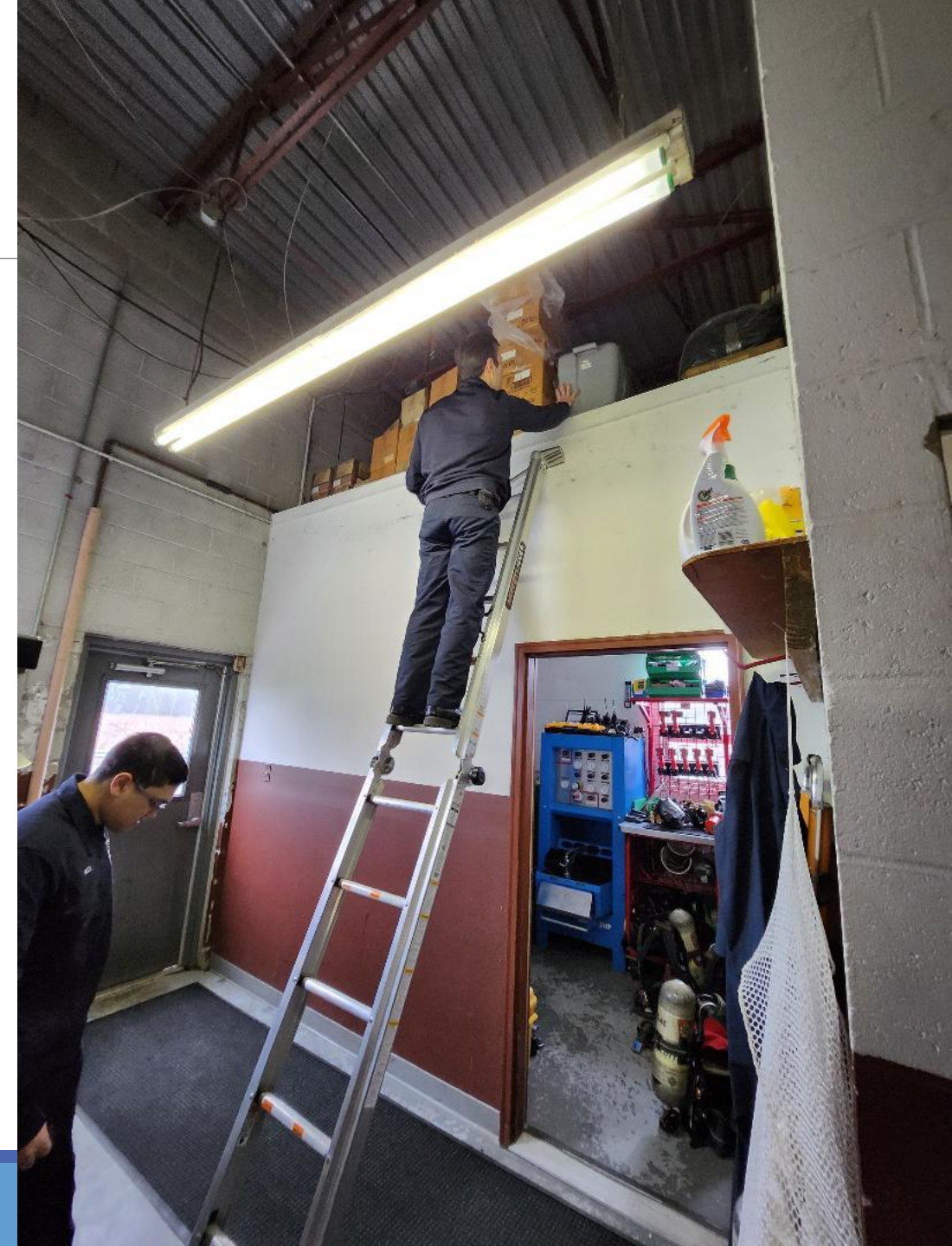
# Why Do We Need a New Station?

- Significant **physical & occupational safety concerns** for our personnel due to:
  - **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

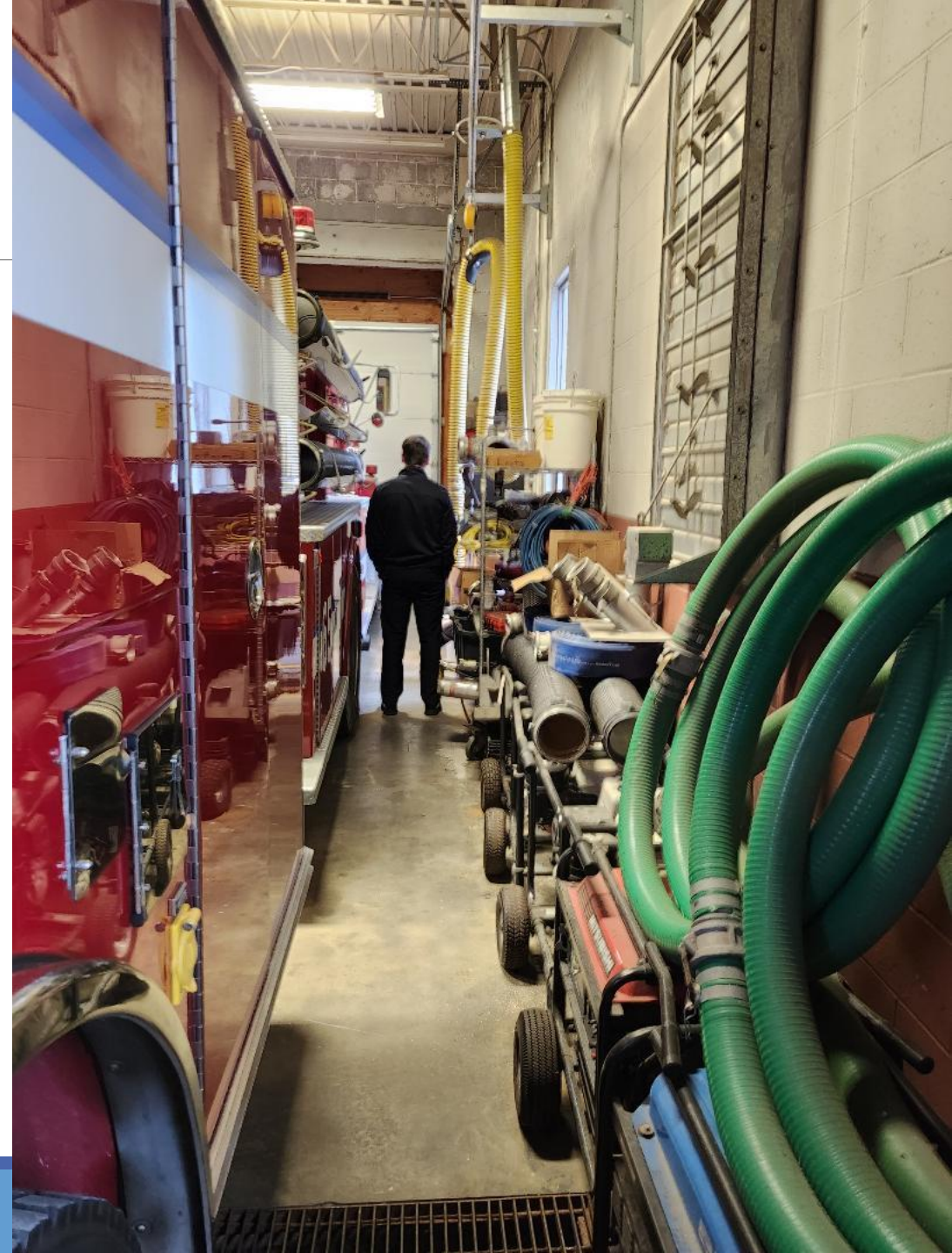
---





# Apparatus Bay Space Concerns

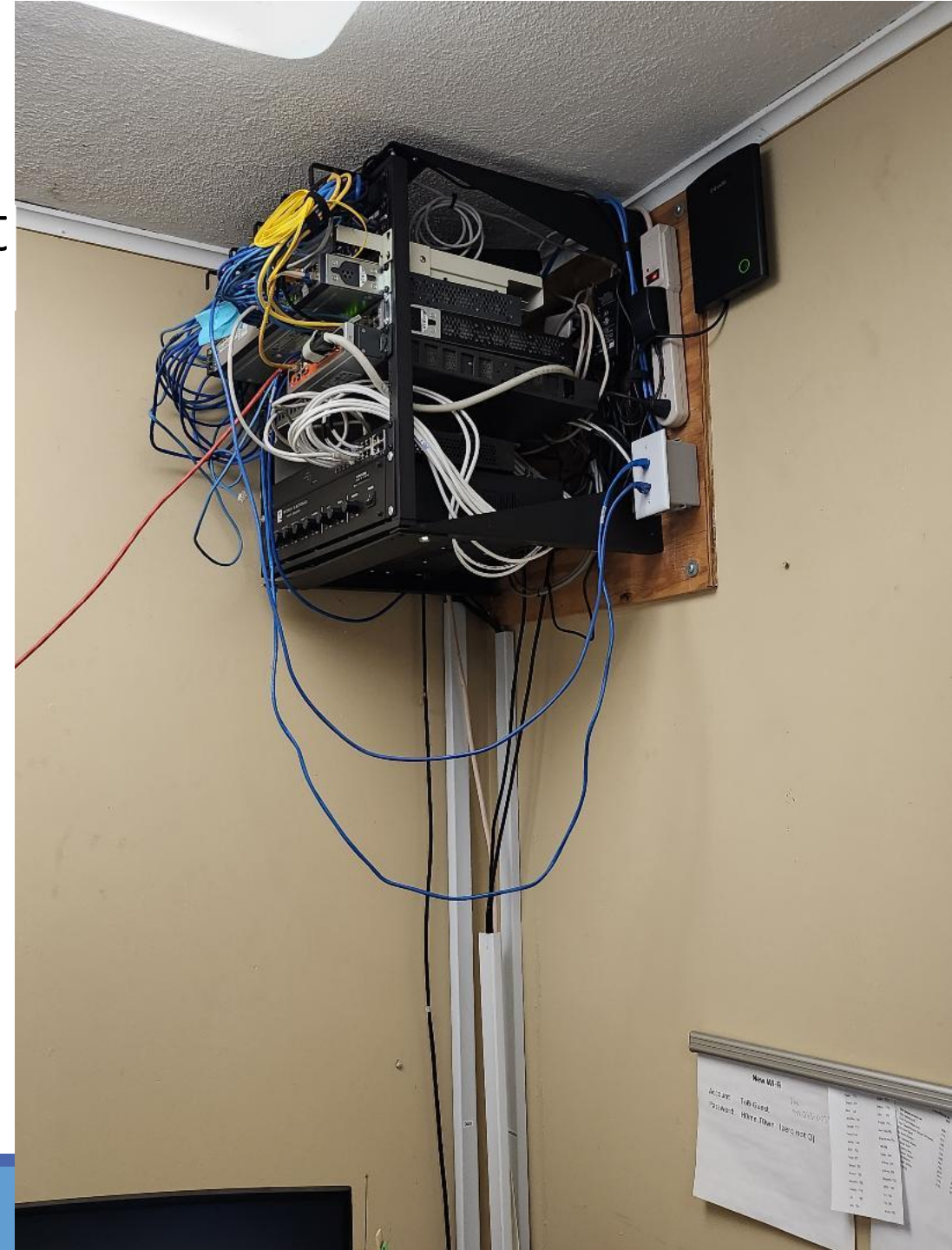
---







## Equipment Safety Concerns





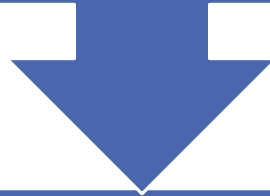
# Privacy Concerns for Staff



# Boxborough Select Board Appointed a 7-Member Committee to Select the Best Site

---

Fire Station Building Committee (FSBC) worked with an architecture firm (Context) and Owner's Project Manager (OPM) (Vertex) to study potential sites



FSBC studied multiple sites in-depth over 9-month period



# FSBC Unanimously Selected 72 Stow Rd Based on 23 Criteria

---

---

72 Stow Rd site supports the functions of the Fire Department better

---

72 Stow road cost estimate was \$6 million less than 502 Mass Ave

---

\$3.9 million needed for temporary space at 502 Mass Ave had no long-term value for the Town

---

The \$1.2 million purchase cost for 72 Stow Rd is an investment in the Town's affordable housing

---

Concerns about encroaching wetlands on the 502 Mass Ave site

---

Building on 502 Mass Ave would have impacted any future expansion for the police department

---

# 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)

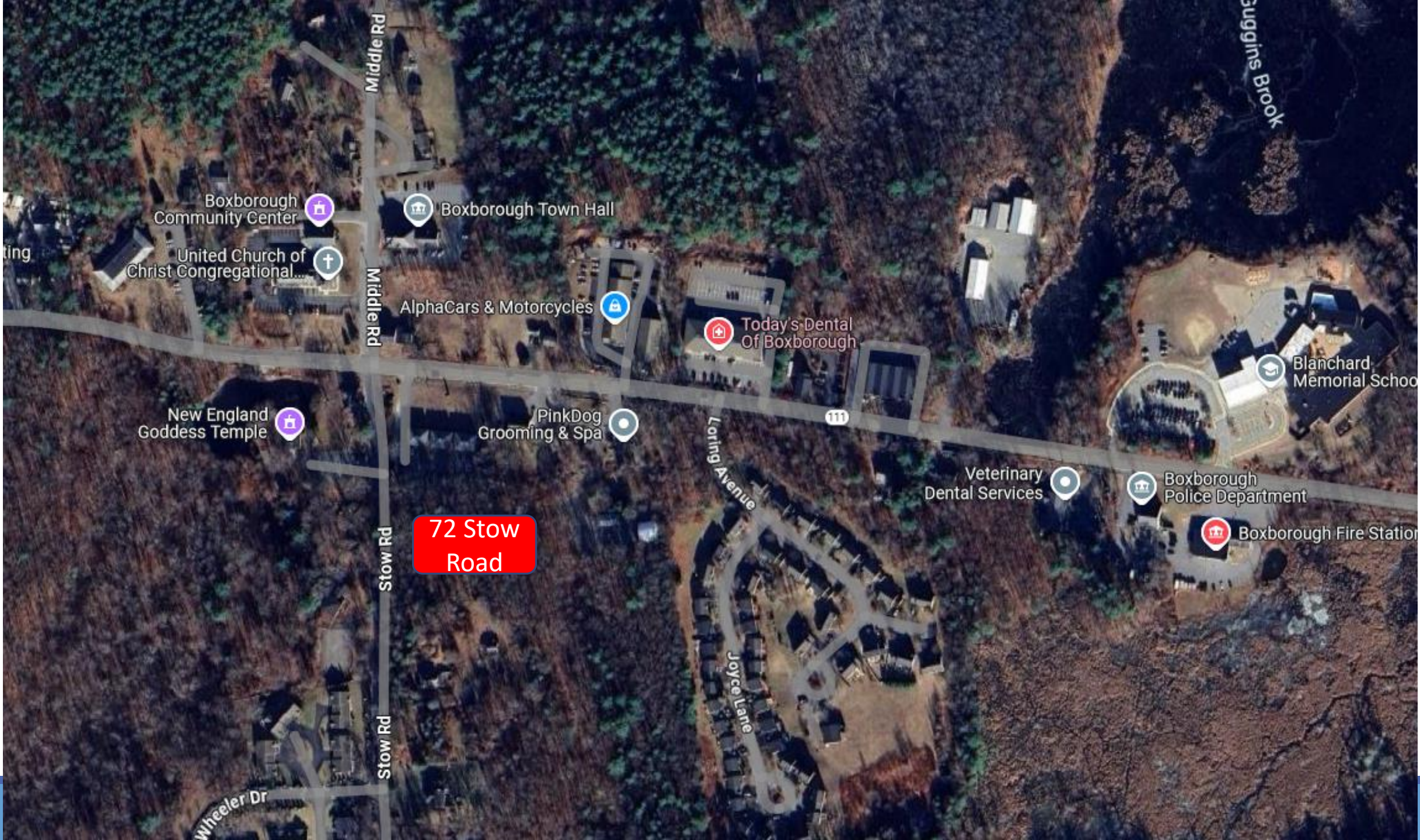
More specific design could reduce size further



# 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	





Boxborough Community Center

United Church of Christ Congregational...

Boxborough Town Hall

AlphaCars & Motorcycles

Today's Dental Of Boxborough

New England Goddess Temple

PinkDog Grooming & Spa

Veterinary Dental Services

Boxborough Police Department

Boxborough Fire Station

Blanchard Memorial School

72 Stow Road

Middle Rd

Middle Rd

Stow Rd

Stow Rd

Wheeler Dr

Loring Avenue

Joyce Lane

Suggins Brook



Route 111



BOXBOROUGH FIRE HQ - CONCEPTUAL SITE PLAN - 72 STOW ROAD



# Firehouse Design & Bid Funding Tax Impact

---

	<b>FY26</b>	<b>FY27</b>	<b>FY28</b>
Fire Station Design Cost	\$ -	\$ 108,000	\$ 187,138
Town Value*	\$ 1,863,847,043	\$ 1,957,039,395	\$ 2,054,891,365
Tax per \$1,000	\$ -	\$ 0.06	\$ 0.09
Avg house value*	\$ 940,472	\$ 987,496	\$ 1,036,871
Tax per average house	\$ -	\$ 54	\$ 94
* estimate			



# We Anticipate Construction Request at 2026 Town Meeting

- Conceptual estimate is \$31,110,726 – Article 2 would result in actual bids
- Firehouse construction would be funded through a 30-year bond
- Tax impact estimated below – ranges provided until Town decides on bonding strategy in FY 2026

	FY27	FY28	FY29
Firehouse Construction Cost			
Yearly Debt Service	\$675,000	\$1,354,888 to \$2,327,500	\$1,853,188 to \$2,282,500
Town Value*	\$1,863,847,043	\$1,957,039,395	\$2,054,891,365
Tax per \$1,000	\$0.36	\$0.73 to \$1.25	\$0.99 to \$1.22
Avg house value*	\$940,472	\$987,496	\$1,036,871
Tax per average house	\$341	\$684 to \$1,174	\$935 to \$1,152
* estimate			

# Vote Yes: Support Your Fire Department and Your Town

Need for a new firehouse first identified in 2013;  
Select Board has been working on this for more than 10 years

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

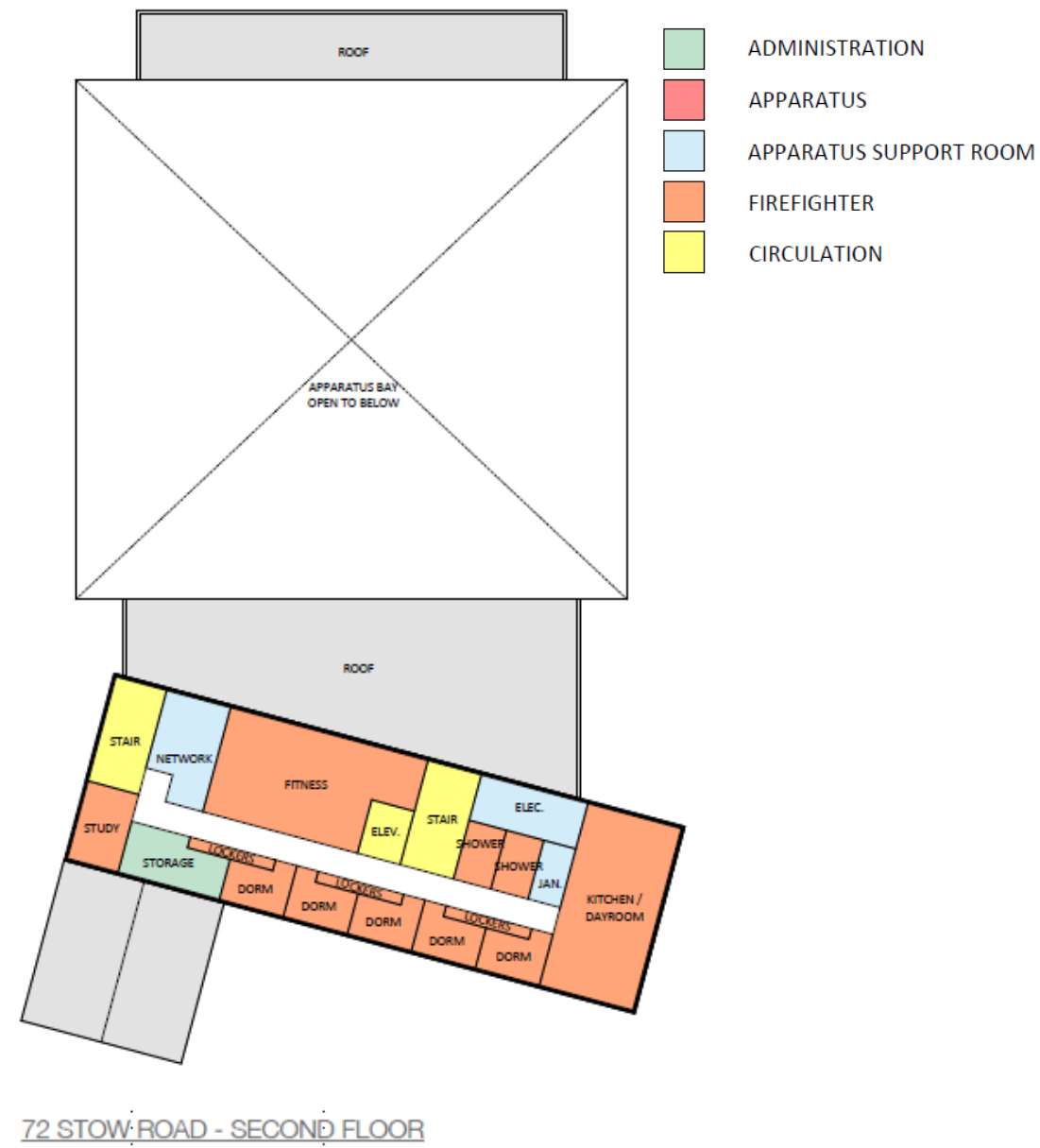
Delays will only cost more

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%



# Back Up Slides

---



# BOXBOROUGH FIRE HQ - CONCEPTUAL SITE PLAN - 72 STOW ROAD



# Phase 2 Assessment

	502 Mass Ave	72 Stow Rd
Criteria	Weighted Score	Weighted Score
Well Water	25	15
Percolation Test for Septic	40	50
Response Time	50	40
Supports FD Program	30	50
Conceptual Estimated Total Cost	10	50
Wetlands	16	40
Sustainability	16	32
Special Site Conditions	15	20
Zoning	15	5
Communications	10	8
Tied Items	126	126
<b>Total Score</b>	<b>353</b>	<b>436</b>

# Sites Assessed and Dropped (1 of 2)

Site	Background	Issues
Campanelli Campus	Former Cisco Beaver Brook campus now Campanelli's "The Park" development	Location considered too remote for fire station
Land behind new DPW 873 Mass Ave	Picnic Trust municipal land	Steep grade at back of DPW; Concerns on Mass Ave sight lines for fire apparatus, and sharing steep DPW driveway
866 Mass Ave	Corner lot at Hughes Land and Mass Ave, across from new DPW	Heavy ledge
Land adjoining Town Hall	Would require apparatus approaches from both Mass Ave and Middle Road, acquisition of all or portions of adjoining private residences	Sharp drop off from town hall parking lot to adjoining parcel not favorable for through-circulation of apparatus from Mass Ave; Overlapping protection zones of nearby PWS; Concerns expressed by Chief White
Land abutting old DPW (593 Mass Ave)	Wanted to see if feasible to make use of old DPW combined with adjoining parcel	Wetlands and buffer zone issues reviewed by Town Planner; Appeared infeasible due to wetlands and limited upland
Land between Blanchard School and Sargent Library	Municipal Land (Hager)	Stream and wetlands issues; would require sharing Library driveway with emergency apparatus; Sight line issues;



# Sites Assessed and Dropped (2 of 2)

Site	Background	Issues
Hager Land	Municipal land behind Library	Grade too steep; would require sharing Library driveway with emergency apparatus. Sight line issues
126 Mass Ave	Corner of Mass Ave and Summer Rd	Extensive wetlands
871 Mass Ave	Old Tree Masters site next to new DPW	1.9 acre lot too deep and narrow for apparatus movement
1300 Mass Ave	Commercial property corner of Mass Ave and Burroughs Rd. BBC evaluated in 2019 for feasibility of converting to PS building.	Evaluation conducted by HKT Architects and Pare Structural Engineers. Building is aging, needs renovation. WW system leach field to east on Mass Ave, nearing end of life. Estimated renovation would likely exceed costs of new construction.
975 Mass Ave	In 2017 BBC contracted Frank Vanzler for professional site construction preparation cost estimate for a one- story 20,000 SF fire station, and possible acquisition under article 3 of Dec 2017 STM. Article passed over.	North side abuts town land (Picnic Trust and Steele Farm). Owned by Dee Bus in 2017. Current assessment is \$168,000. 2017 article passed over due to high cost. Would require extensive site work due to ledge. Vanzler estimated would add ~ \$2M to purchase price in 2019, estimated at about \$2.5M for 2025.

# Sites Committee Has Assessed and Dropped

## 1320 Mass Ave

- Owner not willing to sell under conditions the Town is willing to approve
- Dropped from consideration 9/12/24

## 975 Mass Ave

- Owner indicated price as \$3.5 million for the land
- Land has significant ledge – neighboring lot removed 24 tons of ledge for a 6,000 square foot building; cost to remove estimated at \$2.5 million
- Dropped from consideration 10/10/24



# 700 Mass Ave

## Pros

- No need for temporary operations during construction
- Placement on site would allow for dual access for apparatus
- There are neighbors but they don't seem concerned about location
- Does not affect long-range town planning
- Would be close to town center, providing municipal street presence
- Would need new well and septic, but other utilities available

## Cons

- Land acquisition cost is \$1.5 million
- Hills and curves hinder sight lines
- Lot is tight with wetlands and other restrictions so constrains siting of building and may affect program layout
- Zoning by-law restricts square footage of building on lot to 8,000 to 15,000 square feet; by-law also doubles square footage over 12 feet, which affects apparatus bay
- Legal opinion from land use attorney states that Boxborough unlikely to meet hardship restrictions that would allow our building