

72 Stow Road Firehouse Design and Bid Funding

ARTICLE 2



Photo by John Galla

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 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 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

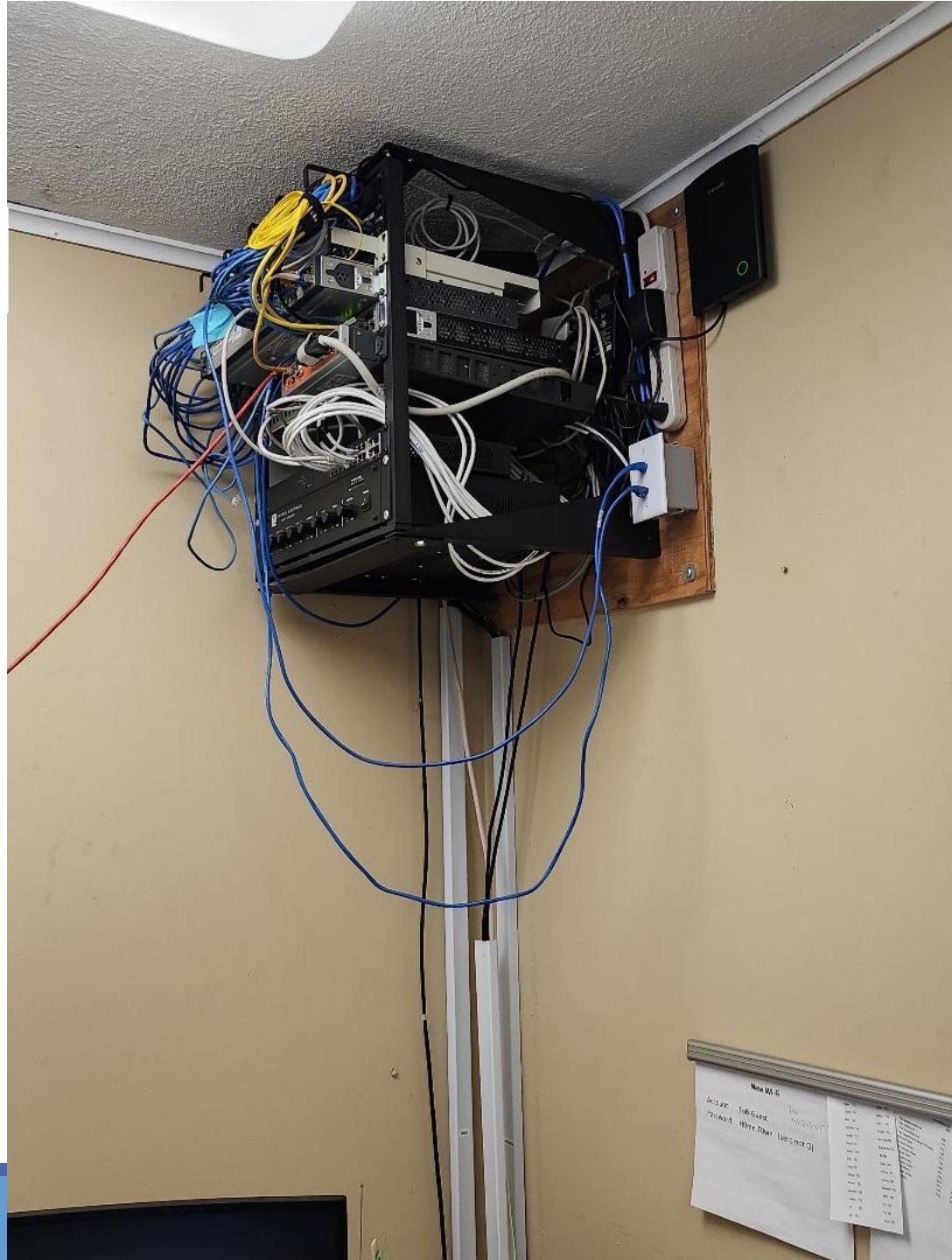


Apparatus Bay Space Concerns





Equipment Safety Concerns

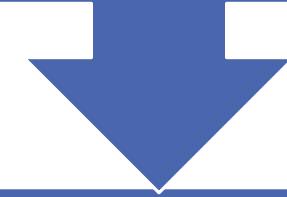


Privacy Concerns for Staff



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

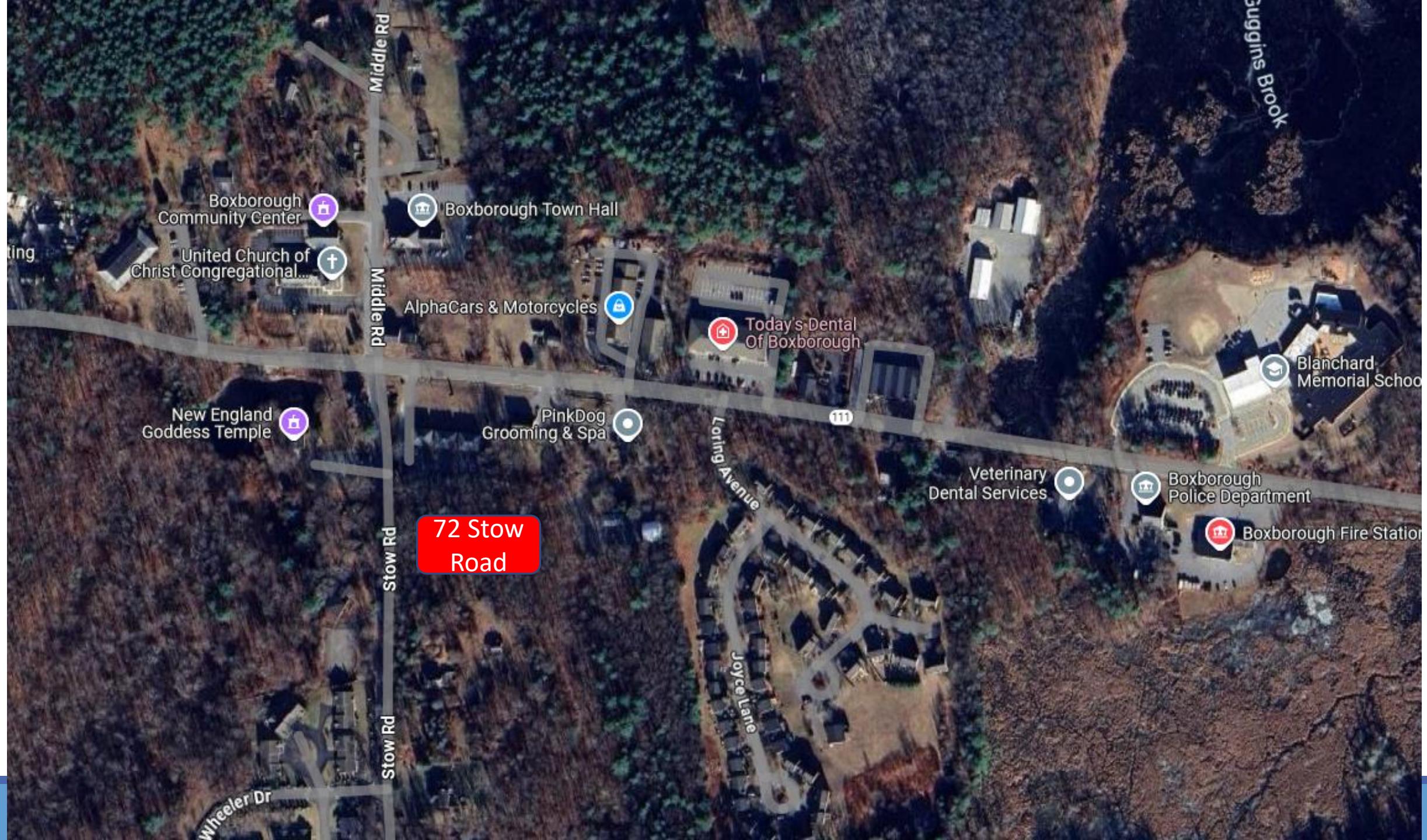
Needs assessment suggested need for a 24,000 GSF Firehouse

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 | |

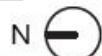


Route 111



BOXBOROUGH FIRE HQ - CONCEPTUAL SITE PLAN - 72 STOW ROAD

Sheriff's Meadow



Firehouse Design & Bid Funding Tax Impact

| | FY26 | FY27 | FY28 |
|--------------------------|------------------|------------------|------------------|
| 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

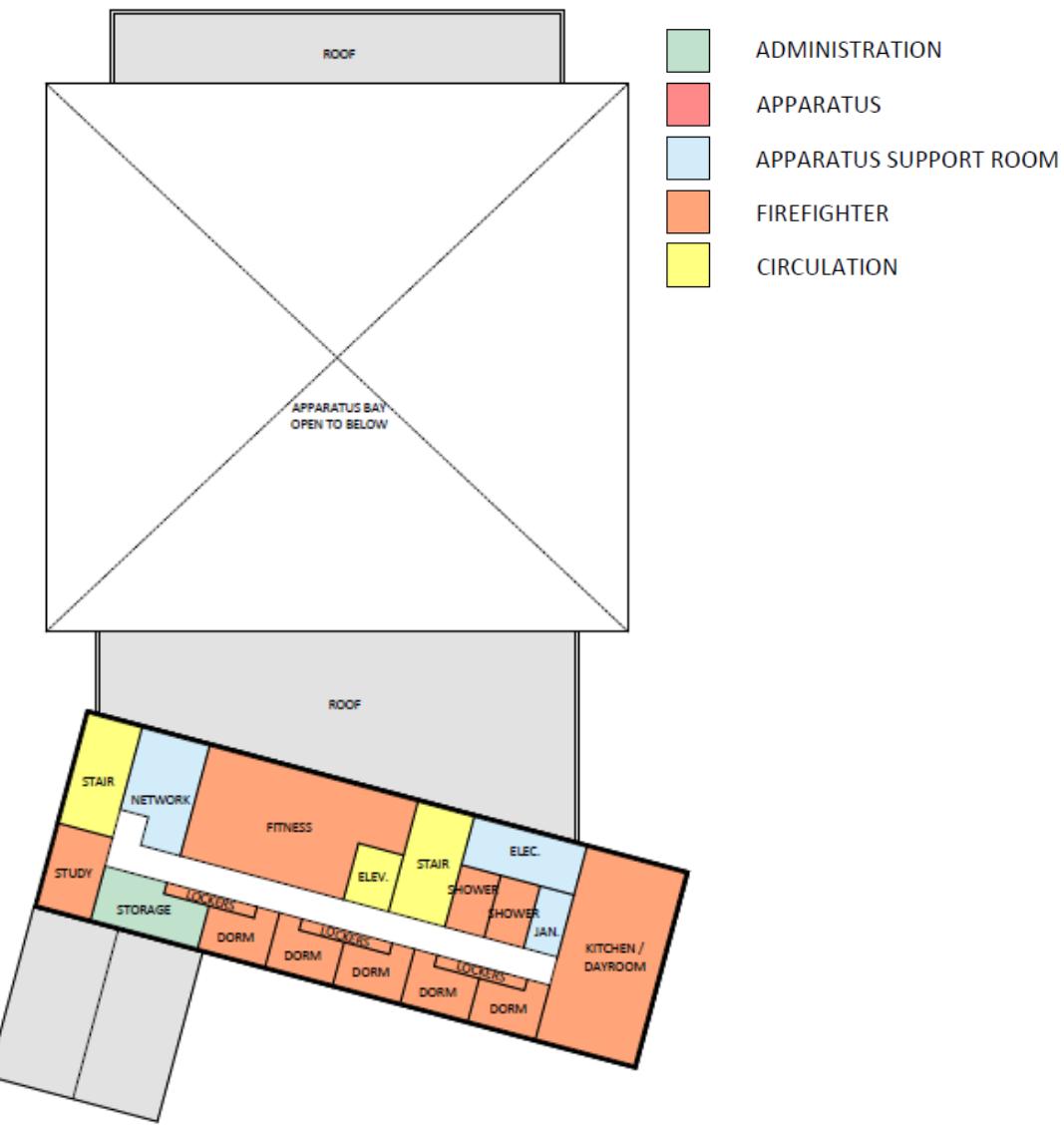
Need for a new firehouse first identified in 2013;
Select Board has been working on this for more than 10 years

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



0' 25' 50' 100'

N.

BOXBOROUGH FIRE HQ - CONCEPTUAL SITE PLAN - 72 STOW ROAD

Phase 2 Assessment

| Criteria | 502 Mass Ave | 72 Stow Rd |
|---------------------------------|----------------|----------------|
| | 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 |
| Total Score | 353 | 436 |

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