Report of the Fire Station Study Planning Committee

Presented to the Hanover Board of Selectmen on November 2, 2020

Edited November 1, 2020

The purpose of the committee as established by the Board of Selectman

To evaluate options for the Hanover Fire Department's need for space, geographically consistent response times, operational efficiency, and cost containment (debt and operational), as they relate to the concept of a new fire department sub-station. The study committee is expected to provide objective analysis (pros and cons, and other considerations) on reasonably probable options; the study committee does not have the burden of making a recommendation.

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Introduction

Submitted by Lisa Mutchler

Hanover Fire Department

The Hanover Fire Department provides fire suppression, advanced life support emergency medical services, fire prevention and code enforcement, public education, hazardous materials and technical rescue response and other emergency services to the Town of Hanover.

The organization is an ISO Class 3 combination fire department made up of a fire chief and deputy fire chief, a fire prevention captain, four shift captains, twenty-two firefighter/paramedics and fourteen call firefighters.

The Hanover Fire Department operates four pumpers, an aerial tower, a squad, two forest fire vehicles and three ambulances.

Personnel and equipment are deployed out of two fire stations: Headquarters, located at 32 Center Street is home to the Fire Department Administrative and Fire Prevention Divisions. The station is staffed 24 hours a day by firefighters. Station 3, located in West Hanover, is staffed by on-call firefighters who respond when dispatched.

History

1991: The Town appropriated $25,000 to conduct a comprehensive study of the Fire Department facilities. The report was completed in 1993 by Municipal Design Inc. The long-range recommendation was to build two new fire stations, one in North Hanover and one in West Hanover to augment Fire Headquarters.

2005: Town Meeting authorized the creation of a Fire Station Study Committee to assess the needs of the town related to fire stations. The Committee submitted their report in February 2008. Their recommendation was to build a new fire station in the North Hanover Area.

2008: Town of Hanover Master Plan states that the Town should "Fund and construct a new Fire Station to replace several others at the site of the former Curtis School on Main Street."

2009: The Fire Department applies for a $2.3 million dollar grant to construct a fire station on the Curtis School Site. The grant is denied as the project is deemed "not shovel ready."

2010: D.R.A. Study states "Our essential recommendation is to dispose of three properties currently being used by the Fire Department, and to construct a new satellite facility…"

2013: Article 31 Care and Control of Curtis School site is transferred from the Board of Selectmen to Parks and Recreation effectively eliminating the possibility of constructing a fire station on it.

- 2/3 majority needed.
- Majority passes by one vote at the annual Town Meeting.

2014: Article 49. To determine if the Town will vote to raise and appropriate available funds, or borrow in accordance with the Massachusetts General Laws, the sum of $10,000, or another sum for the purpose of a study for the replacement of Fire Stations 1, 2, and 3 with a new fire station in the northern area of the Town, or take any other action relative thereto.

The 2014 Feasibility Study selected a site (Webster Street), conducted a needs assessment to determine the size and provided an estimate of the total cost.

In addition, the Insurance Services Office, Inc. (ISO) of Marlton, New Jersey, visited Hanover during 2011 to evaluate the fire department's structure fire suppression capabilities.

Firefighting equipment, staffing, training, and geographic distribution of fire companies are examined according to a uniform set of criteria incorporating nationally recognized standards developed by the National Fire Protection Association. The Town of Hanover received 1.84 points out of a possible 4 points (46%) for Item 561 "Credit for Distribution."

2015: Article 37. To determine if the Town will vote to raise and appropriate, appropriate from the undesignated balance or borrow in accordance with Massachusetts General Laws or any other enabling act, the sum of $44,000 or any other sum, to develop an architectural design for a fire sub-station on Webster Street in North Hanover. The architectural design will include revised plans, elevations, site plans, building renderings, material selection a preliminary structural write up and estimate, or take any other action relative thereto. Cost estimated at $6,888,749. No action was taken by the Town to build another station.

Fire Station Working Group Assembled
Town Manager established a working group consisting of residents, firefighters, facilities director and fire administration to determine the space needs of a new fire station in North Hanover.

2019: March 23: CDR Maguire contracted to update Webster St. Project cost to $9,000,000.

2020: Fire Station Planning Committee created by the Board of Selectman.

Introduction

In accordance with Board of Selectmen policy 2-1(7e) and in recognition of the 2015 Annual Town Meeting vote appropriating $44,000 for the design of a (new) fire substation, the Board of Selectmen created the Fire Station Planning Study Committee at their Regular Meeting held on January 6, 2020.

2020 Fire Station Study Committee Members

	Title	Board Representing
Roger Leslie	Chairman	Citizen At Large
John Galluzzo	Vice Chairman	Citizen At Large
Ruth Lynch	Secretary	School Committee
Meaghan Dunne	Committee Member	Planning Board
Vanessa O'Connor	Committee Member	Advisory Committee/ Board of Selectmen
James Browning	Committee Member	LEPC
John Barry	Committee Member	Board of Selectman
Donald Buckley	Committee Member	Citizen At Large
Lisa Mutchler	Committee Member	Citizen At Large

Meeting Dates

February 4, 2020
March 12, 2020
May 28, 2020
June 16, 2020
July 21, 2020
August 18, 2020
September 15, 2020

Site Visits

July 25, 2020 visit to West Hanover, Carver and North Plymouth Fire Stations
August 29, 2020 visit to 59 Old Webster Street, Hanover

Meeting Minutes

February 4
Meeting Minutes.do

March 12 Meeting
Minutes .docx

May 28 Meeting
Minutes.docx

June 16 Meeting
Minutes.docx

July 21 Meeting
Minutes.docx

August 18 Meeting
Minutes.docx

Feasibility Study
Submitted by Roger A. Leslie, Chairman

Previously I have been appointed to a Hanover Fire Station Planning Committee. I am very hopeful that this time the committee will reach a decision that will meet the needs of all Hanover residents. Working on this committee has proven to be very interesting. This committee worked hard, and all seem to be on the same path. Serving as chairman of the board, I found the board to be very supportive. Some of the members worked on other projects and handled them well. I would like to thank the Board of Selectman and the Town Manager for allowing me to be on this committee. Fire Chief Jeffrey Blanchard offered invaluable expertise and assistance to the Committee. The Vice-Chair John Galluzo and Secretary Ruth Lynch were also very helpful during the past eight months.

The committee focused on two questions.

1. Is another fire station needed?
2. Will an additional fire station and EMT center result in a better response time to a greater population?

The committee focused on the following important features that should be included as part of a new substation.

1. A three-bay station, as currently various pieces of fire equipment are being left outside, such as a boat, different trailers and apparatus.
2. A large area to overhaul tall equipment after a call.
3. Space for sleeping quarters for male and female firefighters, including shower and bathroom facilities.
4. Essential decamp rooms.
5. An area where training could take place for the entire department.
6. Office space for business and operations
7. An area for “call fire fighters” to park their cars when responding.

One of our concerns focused on the importance of a new fire station meeting the needs of the community for many years. When stations are built on insufficient plots, it may prevent any further growth expansion and it often hinders the functionality of the facility. For example, 59 Old Webster Street does not have adequate land because the building takes up most of the site; however, the land at 611 Webster Street is definitely adequate.

A new substation must be built for the future and for today’s needs. Hanover continues to grow with the construction of private homes, apartments and new businesses.

Factors in Considering the Location for a Sub Station in North Hanover
Submitted by Ruth Lynch

In February at our first meeting, Chief Blanchard explained to the Committee the major concerns regarding response time to North Hanover. This was supported and verified by numerous graphs presented by the Chief. (see pages 12-16) During the next seven months, the Committee spent considerable time discussing five possible sites for the construction of the new substation. Several of these sites were visited by the Committee.

Following are a list of Possible Sites discussed by the Committee:

1. Amos Gallant Field, Main Street (at one time this was considered a possible site)
After the demolition of the Curtis School, this land was given to the Town Park and Recreation Department and renamed the Amos Gallant Field. It is currently used for HYAA baseball. Since the property is in a residential section of North Hanover, the Committee considered this site not ideal. However, if no other property becomes available, this could be reconsidered as a possible site. When this issue was previously voted on at a Town Meeting, it was defeated by only a few votes.

2. Undeveloped Land at 611 Webster St (across from Hackett's Pond Drive)
This property is located on a major route (Rt. 123) and is also close to Rt.53. This large plot of land at 611 Webster Street is centrally located in North Hanover. It is near South Shore Vo-Tech, two 55+ apartment developments, and two 3 story apartment buildings. Four apartments will be soon be built at Hanover Crossing along with the new department stores. Chief Blanchard informed the Committee that the vacant, wooded lot across from Hackett's Pond may soon come into the town's possession. No property tax has been paid on this land for over 20 years; thus, the property has been involved in an ongoing case in land court. Before the town can take possession of the property, the end court has required that each member of a large group of heirs to the original owner be contacted; a process which has been ongoing for years. Chief Blanchard was told that this process is moving along. It is hoped that this will be soon resolved. This property according to the Committee is the most conducive to the construction of a new substation. Representatives of CDR Maguire Inc. support this conclusion.

3. Building located at 59 Old Webster Street
This building is for sale for approximately 2.5 million dollars and is located on a piece of land zoned for business in North Hanover, very close to the border with Norwell. After visiting the site, the Committee recognized that the property would need considerable renovation including the drainage system as well as the entrance and exit sites. The size of the bays is considerably smaller than needed. Also, the size of the property would not meet the needs of the Fire Department in the future and would necessitate the building of a third station.

4. Company 3 West Hanover Fire Substation
The current building would need a major renovation and the plot is too small for such a project. Thus, a third new station would definitely be needed.

5. An addition the current Fire Department Headquarters
An addition to the current headquarters would result in limited parking as the land adjacent to the Headquarters is conservation land. More importantly, this would not solve the response time concerns.

Response Times
Submitted by John Galluzzo

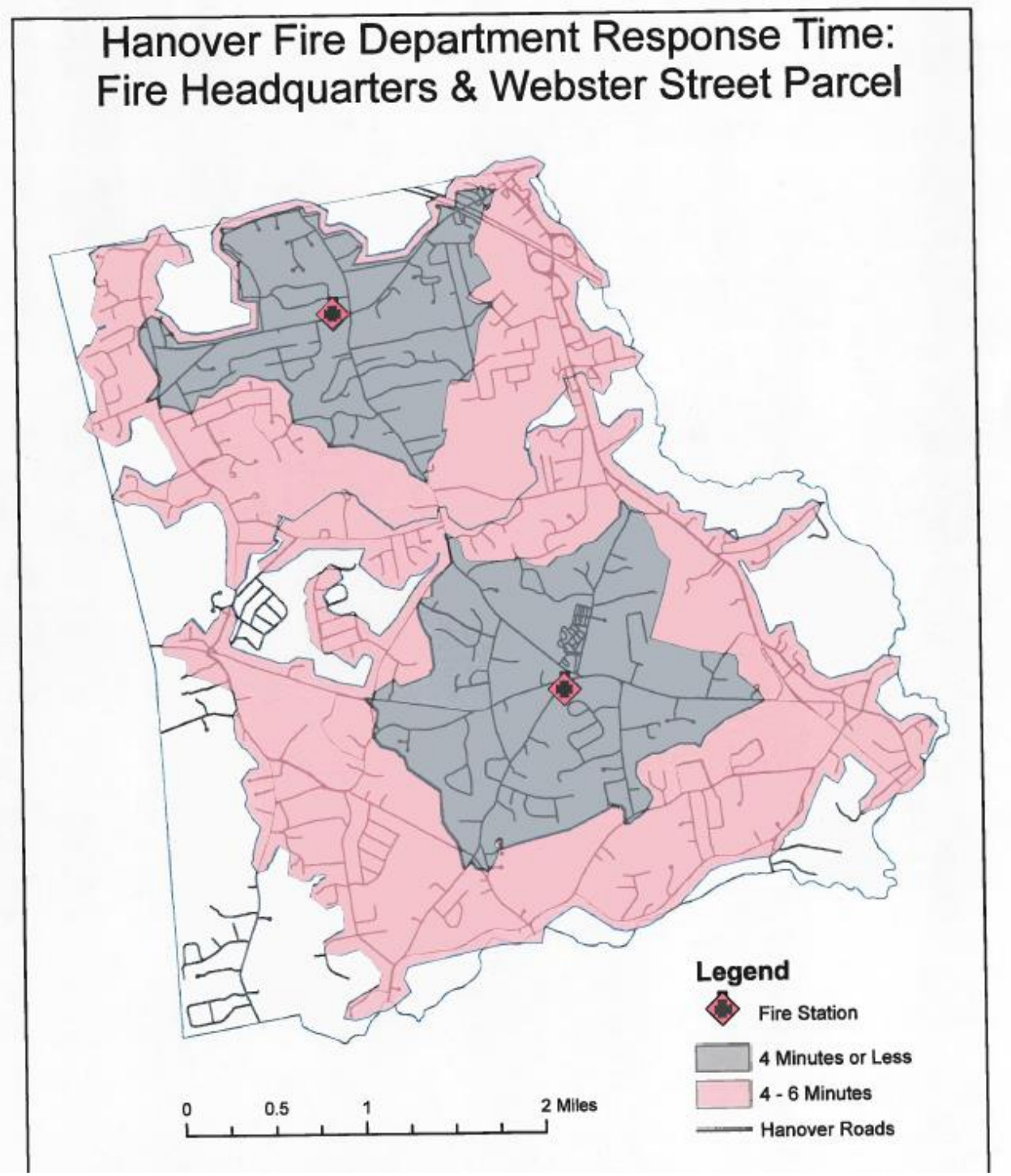
The Hanover Fire Department adheres to a self-imposed standard of a six minute response time to calls in order to meet the standards of the National Fire Protection Agency (NFPA), the American Heart Association (AHA) and the Insurance Services Organization (ISO). Response time is measured from the time the emergency crew receives a 911 call ("completion of dispatch notification" according to the NFPA) to the moment that a crew arrives on the scene.

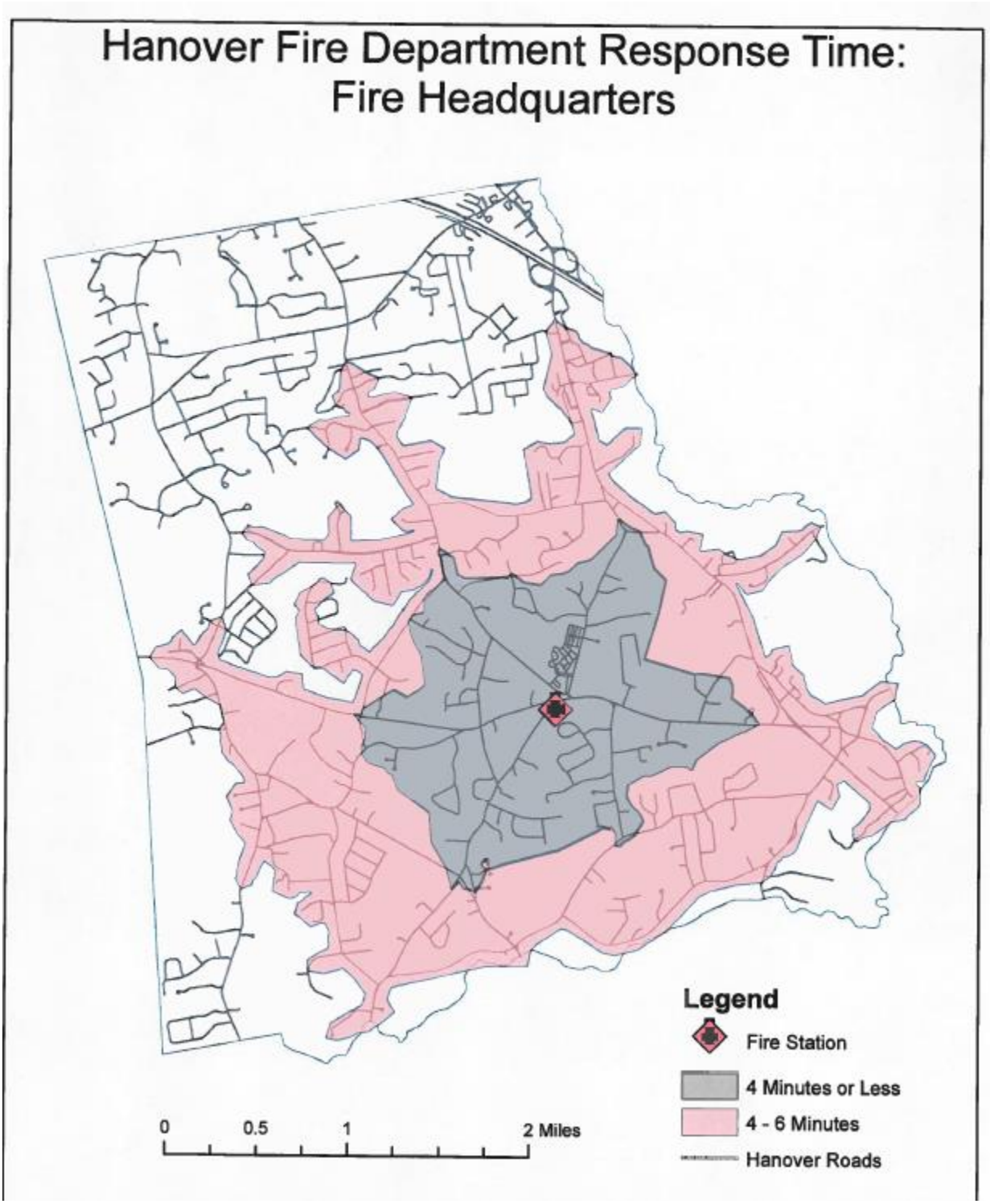
NFPA guidelines state that ideally an emergency crew uses no more than one minute for dispatch, one minute for turnout, and four minutes for driving to the scene. NFPA Standard 1710 is the "Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments". It states "The fire department's fire suppression resources shall be deployed to provide for the arrival of an engine company within a four minute response time and/or the initial full alarm assignment within an eight-minute response time to 90% of the incidents." An uncontrolled fire inside a structure can double in size with each passing minute.

Response times in cases of sudden cardiac arrest are also critical. The AHA's 2010 Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care states that "If bystanders provide immediate CPR, many adults in VF (ventricular fibrillation) can survive with intact neurological function, especially if defibrillation is performed within 5-10 minutes after SCA (sudden cardiac arrest). CPR prolongs VF, delays the onset of asystole, and extends the window of time during which defibrillation can occur. Basic CPR alone, however, is unlikely to eliminate VF and restore perfusing rhythm. Rapid response to such events can mean the difference between life and death for Hanover residents.

The ISO rates a community's fire protection capabilities on a scale of 1-10, with a score of 1 being the highest. A rating of 10 means a community has no fire protection. Only 270 fire departments out of 47,000 nationwide receive a Class 1 rating. Ratings include measurements of emergency communications systems; fire departments, covering personnel, capabilities, training, equipment, etc., water supply; and community risk reduction. Maximum credit is given to communities with fire apparatus that can respond within four minutes of travel time (exclusive of dispatch and turnout times, as noted above). Hanover's current rating is 3.0.

Hanover's average current response times (2015 – 2020) are listed in the attached tables and represented on the maps.


Hanover Fire Department Response Time:
Fire Headquarters & Webster Street Parcel
Legend
Fire Station
4 Minutes or Less
4 - 6 Minutes
Hanover Roads
0
0.5
1
2 Miles


Hanover Fire Department Response Time:
Fire Headquarters
Legend
Fire Station
4 Minutes or Less
4 - 6 Minutes
Hanover Roads
0
0.5
1
2 Miles

STREET	Avg Resp Time in Minutes
• Dwelley Ave.	7.38
• Ponderosa Dr.	8.00
• Oldfield Dr.	8.30
• Roberts Rd.	8.06
• Vine Street	7.46
• Holly Berry Lane	6.29
• Bard Rock Ln.	7.54
• Town Line Dr.	8.47
• Deerfield Ln.	9.29
• Whiton Court	9.36
• Tyler Ln.	9.04
• Honeysuckle Ln.	6.45
• Damon	6.52
• Cedarwood Ln.	6.21
• Brookwood	6.19
• Cushing Hill	8.13
• American Elm	7.28
• Cherry Blossom	8.19
• Sugar Maple	8.18
• Summer Sweet	7.53
• Winterberry	7.50
• Wade Way	7.54
• Beckford Farm Dr.	7.50

STREET	Avg Resp Time in Minutes
• Push Cart Ln.	6.40
• Autumn Ln.	8.20
• Pumpkin Patch Way	7.23
• Lally Farms Dr.	9.40
• SSVT – Webster St.	6.03
• Juniper Ln.	7.40
• Woodbine Cir.	7.16
• Hemlock Cir.	7.44
• Philips St.	6.17
• Woodland Dr.	6.32
• Berry St.	5.37
• Old Town Way	7.10
• Ellis Ave	10.03
• Blue Spruce Ln.	7.12
• Spruce Way	6.50
• Spruce Cir.	7.15
• Beechnut Cir.	7.50
• Curtis Rd.	7.14
• Henry's Ln.	6.48
• Chestnut St.	7.26
• Windward Ln.	8.50
• Henderson Ln.	6.17

STREET	Avg Resp Time in Minutes
• Hackett's Pond Dr.	6.44
• Country Rd.	7.24
• Great Rock Rd.	6.54
• Forest St.	7.01
• Stone Meadow	6.24
• Bates Way	6.50
• Linden Ln.	6.39
• Curtis Mill Ln	6.16
• Shoe Cottage Ln.	7.11
• Bayberry Dr.	7.27
• Azalea	7.21
• Ledgwood Dr.	6.48
• Winstanley Way	7.40
• Pondbrook Ln.	8.28

COST CONTAINMENT - DEBT AND OPERATIONAL

Prepared by Vanessa O'Connor

The Committee has determined that the Town of Hanover's need for the Project, when viewed in light of increasing projected Project costs and the need to have the Project shovel ready to take advantage of federal funds that have historically become available in times of economic crisis, outweigh the not insignificant costs associated with the Project. Additionally, the Project will not cause a significant increase in operational costs as the Project will require no new equipment or additional personnel.

Analysis:

I. Debt

As with any design and construction project entered into by a municipality, the Project will require a significant investment of time, resources and funds by the Town of Hanover. Moreover, the Project costs will be funded almost entirely by debt instruments entered into by the Town of Hanover which will place a significant and long-term burden on the Town of Hanover's finances.

That said, the Town of Hanover and the Hanover Fire Department (the "HFD") have both recognized the need for the Project since at least 1991 when the Town of Hanover conducted a comprehensive study of the HFD facilities. In that study, the reporter, Municipal Design, Inc., recommended that the Town of Hanover build two new fire stations, one of which was to be the Project. It is important to note that the Project's projected cost has only continued to increase in recent years. To illustrate, CDR Maguire Inc. ("CDR Maguire") estimated the total cost for the Project to be $6,888,749.00 in 2015, then $9,000,000.00 on September 23, 2019. Most recently, on September 7, 2020, Saccoccio & Associates Architects estimated that the Project will cost $10,476,488.88. As this illustration demonstrates, the longer the Town of Hanover delays the Project, the more it will ultimately cost.

Additionally, Chief Jeffrey Blanchard has indicated to this Committee that Station 1, which was completed in 1968 and is located at 1160 Main Street, is currently being used only for storage. As both the land it sits on and Station 1 itself are too small for modern fire apparatus, the Town could sell that station upon completion of the Project. Proceeds from such a sale of the older, inadequate facility would help offset debt costs associated with the Project.

Finally, in 2009 during the Great Recession, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) (the "ARRA") appropriated $610,000,000.00 to the Federal Emergency Management Agency, of which $210,000,000.00 was for competitive firefighter assistance grants for "modifying, upgrading, or constructing non-Federal fire stations." At that time, the HFD applied for a $2,300,000.00 grant to fund a prior iteration of the Project to be located at the site of the Curtis School building (then located at 848 Main Street). The HFD's grant application was denied because the project was "not shovel ready." While the ongoing COVID-19 pandemic has created significant municipal challenges, it is not unforeseeable that the federal government could pass an act similar to the ARRA to boost the economy. If that happens and the Town of Hanover is presented with another opportunity to receive substantial federal aid to subsidize the Project, the Town of Hanover would be well served by being prepared with a "shovel ready" Project.

This Committee recognizes that in addition to the proposed Project, the Town of Hanover has also considered purchasing and renovating an existing building located at 59 Old Webster Street and currently owned by Stephen R. LeVangie, as Trustee of the Route 53 Realty Trust (the "LeVangie Property"). However, as discussed in Section 3 of this Report, the LeVangie Property is likely an ill-suited option. While we do not have estimates for the costs associated with purchasing and retrofitting the LeVangie Property for uses compatible with the Town of Hanover's needs, this Committee has determined that given the size of the LeVangie Property, the location thereon of drainage areas, the existing building's height, depth and width, and costs associated with purchasing the property (the owner has indicated that he would sell for $2,500,000.00) and converting the existing building for uses suitable to the Project, it is a reasonable but sub-optimal location for the Project.

II. Operational Costs

A. Personnel

As of June 30, 2019, the HFD employed 22 Career Firefighters, five Career Captains, 14 On-Call Firefighters, two On-Call Lieutenants, a Deputy Chief, a Fire Chief and a civilian Administrative Assistant. Full-time staffing levels include four groups that work rotating twenty-four-hour shifts.[1] Two groups consist of a Captain and six Firefighter/Paramedics and two groups consist of a Captain and five Firefighter/Paramedics. Additionally, a Captain works Monday through Thursday and is assigned to the Fire Prevention Division. On-Call Firefighters are paid an hourly rate when they are requested to respond to emergencies as needed.

While this Committee has not been provided a proposal analyzing the cost of moving operational equipment to staff the completed Project, Chief Blanchard has indicated to the Committee that the Project will not require hiring additional staff as the HFD would be able to redeploy existing fire and rescue crews to the Project.

B. Equipment

As of June 30, 2018, the HFD houses three ambulances, two pumping engines, one tower ladder engines and one squad and rescue boat are housed inside Fire Headquarters, which was completed in 1987 and is located at 32 Center Street next to Town Hall. The HFD also parks one forest fire truck at Fire Headquarters but keeps it outside as there is no room inside for it. The HFD also houses two pumper engines at Station 3, which was built in 1961 and is located at 925 Circuit Street in West Hanover. Finally, the HFD houses the forest fire truck at Station 1 during the winter months.

Projections for the Project indicate that the apparatus room therein will need to be able to store two engines, one forest fire truck and one ambulance.[2] Chief Blanchard has confirmed to this Committee that no new equipment will be needed. Existing equipment will be redistributed.

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[1] The staffing information provided in this paragraph was taken from the Town of Hanover, MA *Annual Report for FY 2019* which can be found at (https://www.hanover-ma.gov/sites/g/files/vyhlif666/f/uploads/fy19_annual_town_report.pdf).

[2] See "*Space Needs Program Evaluation for North Hanover Fire Station Hanover Fire Department*" by CDR Maguire, dated September 5, 2014.

Conclusion

The Town of Hanover has needed the Project for decades and the projected cost to build the Project climb each year that this demonstrated need goes unaddressed. As such, it is critical that the Board of Selectmen, Chief Blanchard and the Finance Committee find a workable solution that will appropriate the funding necessary to implement a plan to build a new substation in North Hanover. After evaluating the Town of Hanover's need for cost containment as the Town of Hanover decides whether, when and how to build the Project, this Committee has determined that the pros of moving forward with the Project outweigh the cons associated with further delay.

Appendices

SPACE NEEDS PROGRAM EVALUATION

For

North Hanover Fire Station

Hanover Fire Department

September 10, 2020

SACCOCCIO & ASSOCIATES
ARCHITECTS

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	Present		Future (2035)	
Personnel, Day Shift	Per Shift	Total	Per Shift	Total
Station Officer	1	4	1	4
Firefighters –Career	1	4	3	12
Firefighters –On Call		10		10
Total	2	18	4	26

	Present	Future
	Parking per Shift	Parking per Shift
Staff	18	26
Public	6	6

Site Features

Provide space for dumpster, A/C condenser, emergency diesel generator (48 hour service for entire building), and future communications tower.

Provide gated parking for staff
Heated approach slabs
Drive-thru

Interior Features

- All wall clocks inter wired
- Multiple data and outlet locations in each room

SPACE NEEDS PROGRAM **SPACE ALLOCATIONS**

	ITEM	PROPOSED SF	Two Story 1ST	Two Story 2ND
APPARATUS AND SUPPORT				
APPARATUS ROOM	I-4	4,320	4,320	
EQUIPMENT STORAGE	I-6	140	140	
TURNOUT GEAR ROOM	I-7	320	320	
FIREFIGHTER'S TOILET	I-8	60	60	
DELUGE SHOWER	I-9	36	36	
AIR SUPPLY ROOM	I-10	240	216	
WASHER/DRYER	I-11	64	64	
"CONTAMINATED" WASHER EXTRACTOR	I-12	80	80	
BIOHAZARD/DECON ROOM	I-13	128	128	
EMS storage	I-14	144	144	
FIRST AID TRIAGE	I-15	120	120	
Training	I-16	144	144	
READY ROOM/BATTERY CHARGING	I-17	36	36	
PUBLIC/LOBBY/DISPATCH				
WATCH ROOM	I-18	200	200	
PUBLIC LOBBY/VESTIBULE/RECEPTION	I-19	200	200	
PUBLIC TOILETS	I-20	100	100	
ADMINISTRATION				
EMS OFFICE	I-21	165	165	
CAPTAIN'S OFFICE	I-22	120	120	
STUDY ROOM	I-23	120		120
SUPPLY CLOSET	I-24	36	36	
SERVER CLOSET	I-25	64	64	
INDOOR TRAINING				
TRAINING EQUIPMENT STORAGE	I-26	80	80	
TRAINING ROOM	I-27	800	800	
FITNESS	I-28	580		580
FIREFIGHTER'S QUARTERS				
FIREFIGHTER'S ROOMS (6)	I-29	864		864
LINEN WASHER AND DRYER	I-30	64		64
TOILET AND SHOWER	I-31	180		180
DAY ROOM	I-32	400		400
KITCHEN/DINING	I-33	468		468
PANTRY	I-34	80		80

	ITEM	PROPOSED SF	Two Story 1ST	Two Story 2ND
BUILDING SUPPORT AND SYSTEMS				
JANITOR'S CLOSET	I-35	108	72	36
BUILDING SUPPLIES ROOM/STORAGE	I-36	100		100
MAINTENANCE AND STORAGE	I-37	100	100	
ELEVATOR		160	80	80
ELEVATOR MACHINE ROOM		80	80	
MECHANICAL ROOM		277	277	
ELECTRICAL/TEL ROOM		120	120	
SUBTOTAL		11,803	8,831	2,972
WALLS, CIRCULATION, STAIRS, CHASES @30%		3,541	2,649	892
TOTAL GROSS FIRST FLOOR			11,480	
TOTAL GROSS SECOND FLOOR				3,864
TOTAL BUILDING GROSS		15,344	15,344	

APPARATUS ROOM

FLOOR AREA NEEDED	3 bays @ 18' x 80' = 4,320 SF
ADJACENCY REQUIREMENTS	Adjacent to firefighters' quarters and to support spaces. Drive thru bays
PUBLIC ACCESS	Controlled by public lobby
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Eye wash, area for printer and radio charging (Ready Room), Storage for hose coils – 1,500 LF of 4" 1,500 LF of 2½" 1,500 LF of 1½"
FRONT LINE RESPONSE	2 Engines @ 38' 1 Forest @ 18' 1 Ambulance @ 28'
SPECIAL NEEDS	Electric cord reel. Overhead doors 14' x 14', R-19 Insulation Overhead power, Overhead water fill, compressed air. Overhead door operations: At door jamb, at office, and on apparatus vehicles, safety signals beside door jams and light curtain door stops Wide trench drains. Mop sink In-slab radiant heat for the apparatus bay and approach slabs Acoustic considerations Sand/oil separator Heavy-duty overhead door operators Zetron speakers and lights Vehicle exhaust system
FLOOR MATERIALS AND FINISHES	epoxy
WALL MATERIALS AND FINISHES	CMU with epoxy paint
CEILING MATERIALS AND FINISHES	Painted exposed/GWB

LIGHTING	Low-level night lighting, LED dimmable
HVAC	No A/C, provide vehicle exhaust system, ceiling fans Radiant Floor Heat

EQUIPMENT STORAGE

FLOOR AREA NEEDED	10' x 14'' = 140 SF
ADJACENCY REQUIREMENTS	Next to apparatus room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Storage for hand tools, ropes, portable generator, ice sled, 2 rows of 18" deep metal mesh shelving on one wall
FLOOR MATERIALS AND FINISHES	Concrete with hardener
WALL MATERIALS AND FINISHES	CMU-epoxy paint
CEILING MATERIALS AND FINISHES	Painted exposed structure/GWB
LIGHTING	LED
HVAC	No A/C

TURN-OUT GEAR ROOM

FLOOR AREA NEEDED	10 SF for each locker (32) = 320 SF
ADJACENCY REQUIREMENTS	Next to apparatus room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	32 steel mesh cubicles 24" x 24" with top and bottom shelves Zetron speakers
SPECIAL NEEDS	Zetron speakers Floor drains Electrical outlets in each cubicle Multiple entrances into gear room and multiple exits into apparatus bay.
FLOOR MATERIALS AND FINISHES	Concrete with hardener/or rubber flooring
WALL MATERIALS AND FINISHES	CMU with epoxy paint
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C, very good ventilation – Maintain gear room under negative pressure

DECON ROOM

FLOOR AREA NEEDED	Unisex toilet (1 @ 80 SF) 80 SF
ADJACENCY REQUIREMENTS	Next to apparatus room
PUBLIC ACCESS	None
FURNITURE, FIXTURES & EQUIPMENT	toilet, sink,
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	CMU with ceramic tile wainscot
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	A/C, good ventilation

DECON ROOM

FLOOR AREA NEEDED	6' x 6' = 36 SF
ADJACENCY REQUIREMENTS	Adjacent to Biohazard/Decon Room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	None
FURNITURE, FIXTURES & EQUIPMENT	Overhead, large diameter emergency shower head with pull chain, and eyewash device
FLOOR MATERIALS AND FINISHES	Ceramic tile Recessed slab with curb
WALL MATERIALS AND FINISHES	CMU with ceramic tile
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED, vapor proof
HVAC	No A/C, good exhaust

DECON ROOM

FLOOR AREA NEEDED	8' x 8' = 64 SF
ADJACENCY REQUIREMENTS	Adjacent to Decon Room and "Contaminated" washer extractor
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	None
FURNITURE, FIXTURES & EQUIPMENT	Washer and dryer with shelving above and folding counter
SPECIAL NEEDS	Zetron speakers Floor drain
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C, good ventilation, dryer vent

DECON ROOM

FLOOR AREA NEEDED	8' x 10' = 80 SF
ADJACENCY REQUIREMENTS	Near Decontamination Room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	None
FURNITURE, FIXTURES & EQUIPMENT	Heavy-duty, stainless steel, 45 lb. capacity washer extractor and dehydrator with shelving above
SPECIAL NEEDS	Floor drain Thickened floor slab Gravity drain from extractor with air gap
FLOOR MATERIALS AND FINISHES	Concrete with hardener/ or rubber flooring
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C, good ventilation, dryer vent

AIR SUPPLY ROOM

FLOOR AREA NEEDED	12' x 20' = 240 SF
ADJACENCY REQUIREMENTS	Off of apparatus room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	Rack for storage of air tanks, 6' long workbench, tool storage, SCBA air tanks, dive gear storage, SCBA compressor 4' x 10'
SPECIAL NEEDS	Zetron speakers Utility Sink
FLOOR MATERIALS AND FINISHES	Concrete with hardener
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C, good ventilation

BIOHAZARD/DECON ROOM

FLOOR AREA NEEDED	8' x 16' = 128 SF
ADJACENCY REQUIREMENTS	Near deluge shower accessible from the exterior and the apparatus bay
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	3' x 4' floor sink, hose with spray, sink with eye wash device, large/deep wall-mounted stainless steel sink with foot controls
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	CMU with ceramic tile wainscot
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	Good ventilation

EMS

FLOOR AREA NEEDED	12' x 12' = 144 SF
ADJACENCY REQUIREMENTS	Near apparatus room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	12" metal shelving, spaced at 12" apart on three sides of room. Lockable narcotics cabinet.
FLOOR MATERIALS AND FINISHES	Sealed concrete
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	Good ventilation, A/C

FIRST AID TRIAGE

FLOOR AREA NEEDED	10' x 12' = 120 SF
ADJACENCY REQUIREMENTS	Near apparatus room Adjacent to main entrance and accessible from the exterior
PUBLIC ACCESS	Limited (controlled)
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	Base and wall cabinets on one wall with sink and 2 chairs
SPECIAL NEEDS	Able to accommodate ambulance gurney Zetron speakers
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	Good ventilation, A/C

TRAINING

FLOOR AREA NEEDED	12' x 12' = 144 SF
ADJACENCY REQUIREMENTS	Near apparatus bay
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	None
FURNITURE, FIXTURES & EQUIPMENT	3' x 4' floor sink, hose washing equipment (dept. to confirm equipment space)
SPECIAL NEEDS	Floor drain Moc stand pipe Incorporate training elements within building
FLOOR MATERIALS AND FINISHES	Concrete with sealer
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	Exposed structure/GWB
LIGHTING	LED
HVAC	No A/C

MAINTENANCE ROOM

FLOOR AREA NEEDED	3' x 12' = 36 SF
ADJACENCY REQUIREMENTS	Alcove adjacent to Apparatus Room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Counter with storage cabinets and shelving
SPECIAL NEEDS	Electrical wire mold outlets and data jacks
FLOOR MATERIALS AND FINISHES	Sealed concrete.
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED Task lighting
HVAC	No A/C

WATCH ROOM

FLOOR AREA NEEDED	200 SF
ADJACENCY REQUIREMENTS	Direct view to Public/Lobby entrance, view into Apparatus Room. Adjacent to Triage Room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	2 desks for report writing, 2 chairs, wall space for maps, counter with storage for forms under at window to Public Lobby, 20 LF shelving, white board, cable TV.
SPECIAL NEEDS	Window with pass-through and counter to Public Lobby/Reception Controls for VOC-ALARM or ZETRON. CCTV Room darkening shades.
FLOOR MATERIALS AND FINISHES	Resilient Tile
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED, 2 level lighting, task lighting
HVAC	A/C

PUBLIC LOBBY/VESTIBULE/RECEPTION

FLOOR AREA NEEDED	8' x 8' = 64 SF
ADJACENCY REQUIREMENTS	Next to Watch Room; Speak-thru and paper slot to watch room.
PUBLIC ACCESS	Full access
SECURITY REQUIREMENTS	Moderate; controlled exit from Lobby to the rest of the building. All public must check in at watch room first.
FURNITURE, FIXTURES & EQUIPMENT	
SPECIAL NEEDS	Surveillance from Watch room, automatic door operators
FLOOR MATERIALS AND FINISHES	Porcelain pavers
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED plus accept lighting
HVAC	A/C

PUBLIC TOILETS

FLOOR AREA NEEDED	1 @ 6.5' x 7.5' = 100 SF
ADJACENCY REQUIREMENTS	Access from Public Lobby but not visible
PUBLIC ACCESS	High
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Toilet and sink
SPECIAL NEEDS	Handicapped accessible Floor drain
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	Ceramic tile wainscot
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C, good exhaust tied to light switch

EMS OFFICE

FLOOR AREA NEEDED	11' x 15' = 165 SF 2' x 6' Lockable storage closet 177 SF TOTAL
ADJACENCY REQUIREMENTS	Captain's Office
PUBLIC ACCESS	Limited, controlled
FURNITURE, FIXTURES & EQUIPMENT	30" x 6' desk with return and credenza, desk chair, with 2 file lateral file drawers, TV/VCR Closet with adjustable metal shelving
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C

CAPTAIN'S OFFICE (duty officer)

FLOOR AREA NEEDED	10' x 12' = 120 SF
ADJACENCY REQUIREMENTS	Near EMS and Watch room
PUBLIC ACCESS	Limited, controlled
FURNITURE, FIXTURES & EQUIPMENT	(1) 30" x 6' desk and return, 1 desk chair, 1 guest chair, 4 LF book shelves, (1) 3' storage cabinets, (1) 3-drawer lateral files with top
SPECIAL NEEDS	Coat closet Zetron speakers
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C

SUPPLY CLOSET

FLOOR AREA NEEDED	6' x 6' = 36 SF
ADJACENCY REQUIREMENTS	Adjacent to Administrative Workroom
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	4 rows of 24" adjustable metal shelving on two walls
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C

SERVER CLOSET

FLOOR AREA NEEDED	8' x 8' = 64 SF
ADJACENCY REQUIREMENTS	Off Administrative offices
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	
SPECIAL NEEDS	UPS system, 4 data ports at desk, 1 filing cabinet
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB/exposed structure painted
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C

TRAINING STORAGE ROOM -POSSIBLE REMOTE LOCATION

FLOOR AREA NEEDED	8' x 10' = 80 SF
ADJACENCY REQUIREMENTS	Access from training room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	High
FURNITURE, FIXTURES & EQUIPMENT	Shelving, 1½' deep for the storage of training equipment; VCR, TV monitor, slide projector, training tapes, CPR training equipment such as mannequins. Area to store tables and chairs.
FLOOR MATERIALS AND FINISHES	Carpet
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	No A/C

TRAINING ROOM - POSSIBLE REMOTE LOCATION

FLOOR AREA NEEDED	40 people @ 20 SF/person = 800 SF
ADJACENCY REQUIREMENTS	Accessible from lobby and adjacent to Training Equipment Storage
PUBLIC ACCESS	Yes
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Table and chairs to accommodate 40; podium, stand with wheels for VCR, video monitor, and video and slide projectors. White board, fabric covered tackable surfaces. Room darkening shades. Cable data outlets.
SPECIAL NEEDS	Alcove for coffee prep to include small refrigerator, microwave, sink, coffeemaker, and cabinets above. Zetron speakers Sound control to adjacent spaces Exterior access
FLOOR MATERIALS AND FINISHES	Carpet
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED with dimmers
HVAC	A/C with good exhaust system

FITNESS

STAFF	All
FLOOR AREA NEEDED	580SF
ADJACENCY REQUIREMENTS	Direct access to showers
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Treadmill, stationary bicycle, universal weight machines. Equipment will be furnished with FF&E.
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	Clock, wall-mounted TV, cable, mirrored wall. Sport flooring on concrete slab, sound insulation
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C, good ventilation, separate control

FIREFIGHTER'S ROOMS

FLOOR AREA NEEDED	6 @ 8' x 18' = 864 SF
ADJACENCY REQUIREMENTS	Good access to Apparatus Room Adjacent to toilet rooms Lockers outside of sleeping area
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Each room to have a chair, extra long twin bed, small built-in desk, (4) 2' x 2' full size lockers. Provide 2 power, 2 data and 2 cable TV outlets on all walls. Room darkening shades.
SPECIAL NEEDS	Zetron speakers Sound attenuation in walls
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED, 2 light levels Task lighting
HVAC	A/C

"CLEAN LINEN" WASHER/DRYER

FLOOR AREA NEEDED	8' x 8' = 64 SF
ADJACENCY REQUIREMENTS	Near firefighters' quarters
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	None
FURNITURE, FIXTURES & EQUIPMENT	Stacked washer/dryer with shelving, folding counter and cabinets for accessories.
SPECIAL NEEDS	Floor drain and drain pan. Zetron speakers. Wash sink in cabinet
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	No A/C, good ventilation, dryer vent

TOILET & SHOWER

FLOOR AREA NEEDED	3 Unisex Toilet Rooms 3 at 10' x 6' = 180 SF
ADJACENCY REQUIREMENTS	Near Firefighters Rooms
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Sink, toilet, shower with drying area.
SPECIAL NEEDS	1 full-length mirror, Zetron speakers.
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	GWB with ceramic wainscoting
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	A/C

DAY ROOM

FLOOR AREA NEEDED	400 SF
ADJACENCY REQUIREMENTS	Good access to Apparatus Room near Kitchen/Dining
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Recliners, couch and seating for 8. Provide power and cable TV outlets on all walls.
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	Carpet
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED, multiple TV jacks, task
HVAC	A/C

KITCHEN/DINING

FLOOR AREA NEEDED	Kitchen 18 x 12 = 216 SF Dining 18' x 14' = 252 SF TOTAL = 468 SF
ADJACENCY REQUIREMENTS	Near Day Room and pantry
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Commercial appliances; 6 burner range with oven and hood, microwave, 20 CF refrigerator 20 CF freezer/ large deep sink, dishwasher, water tap at range, solid-surface countertop, tables to accommodate 12-14 plumbed coffeemaker
SPECIAL NEEDS	Zetron speakers
FLOOR MATERIALS AND FINISHES	Ceramic tile, quarry tile
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C, range exhaust

PANTRY

FLOOR AREA NEEDED	10' x 8'' = 80 SF
ADJACENCY REQUIREMENTS	Alcove off of Kitchen
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	(4) 24" x 24" lockable storage closets, (1 per shift) keyed individually with locks, 1 50-lb. ice maker, shelving elsewhere
FLOOR MATERIALS AND FINISHES	Ceramic tile, quarry tile
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	A/C

JANITOR'S CLOSETS

FLOOR AREA NEEDED	(1 on each floor) @ 6' x 6' = 36 SF 36 x 3 = 108 SF TOTAL
ADJACENCY REQUIREMENTS	Centrally located
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Floor sink, mop racks, shelving
FLOOR MATERIALS AND FINISHES	Ceramic tile
WALL MATERIALS AND FINISHES	GWB with ceramic tile wainscoting
CEILING MATERIALS AND FINISHES	GWB
LIGHTING	LED
HVAC	No A/C

BUILDING SUPPLIES ROOM/STORAGE

FLOOR AREA NEEDED	10' x 10' = 100 SF
ADJACENCY REQUIREMENTS	None
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	Three rows of adjustable 24" deep shelves on two walls and 12" deep shelves on one wall
FLOOR MATERIALS AND FINISHES	VCT
WALL MATERIALS AND FINISHES	GWB
CEILING MATERIALS AND FINISHES	ACT
LIGHTING	LED
HVAC	No A/C

MAINTENANCE & STORAGE

FLOOR AREA NEEDED	10' x 10' maintenance, 100 SF
ADJACENCY REQUIREMENTS	First floor, good access to exterior and Apparatus Room
PUBLIC ACCESS	None
SECURITY REQUIREMENTS	Moderate
FURNITURE, FIXTURES & EQUIPMENT	6' workbench with stool and tool rack above, 30 LF shelving
FLOOR MATERIALS AND FINISHES	Concrete with hardener
WALL MATERIALS AND FINISHES	CMU
CEILING MATERIALS AND FINISHES	GWB or exposed
LIGHTING	LED
HVAC	No A/C, ventilation

SACCOCCIO & ASSOCIATES
ARCHITECTS
Cranston, RI & Milton, MA

North Hanover Fire Station - Conceptual Project Budget Report - 9/7/20

Development Budget Breakdown		Value	Comments
Line	Description		
			Total Square footage
	Construction Costs		15400
1	Construction Estimate	$ 7,392,000.00	3 bay station sq ft / First floor 11,500 second Floor 3,900 sf
2	Design & Escalation Contingency	$ 665,280.00	9% (including escalation to 1st quarter 2022)
3	Total Construction Costs	$ 8,057,280.00	
	Owner's Development Costs		
4	Architect & Engineering (Design thru Const)	$ 644,582.40	8.00%
5	AE Additional Service and Reimbursable	$ 10,000.00	Allowance
6	Owner's Project Manager (SD thru Const)	$ 241,718.40	3%
7	Commissioning Agent	$ 25,000.00	Allowance
8	3rd Party Estimates	$ 15,000.00	2 Estimates @ $7,500.00
9	Geotech (During Design)	$ 8,500.00	
10	Geotech (During Const)	$ 15,000.00	Allowance
11	Material Testing	$ 20,000.00	Allowance
12	3rd Party Fire Safing Inspections	$ 2,000.00	Allowance
13	Furniture & Furnishings	$ 65,000.00	
14	Vehicle Exhaust Recovery System	$ 50,000.00	
15	Alerting System	$ 45,000.00	Equipment Only, install by EC
16	Security System	$ 40,000.00	
17	Phone System	$ 3,000.00	Allowance
18	AV Equipment, IT, etc.	$ 35,000.00	
19	Training Equipment	$ 5,000.00	Allowance
20	Misc. Loose Equipment	$ 132,000.00	Includes fitness equipment.
21	Communication Equipment/Radios	$ 65,000.00	
22	Printing/Advertisements/Misc.	$ 5,000.00	Allowance
23	Utility Company Back charges	$ 40,000.00	Allowance
24	Total Owner's Development Costs	$ 1,466,800.80	
25	Sub total	$ 9,524,080.80	
25	Owners Contingency (10%)	$ 952,408.08	
26	Grand Total	$ 10,476,488.88	