

Avon Fire Department Plan for the Future

An Analysis of Existing Conditions and Setting a Course for the Future

September, 2022

Prepared for:

Town of Avon, Connecticut

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Summary

The Town of Avon and the Avon Volunteer Fire Department, Inc. (AVFD) engaged the CGR team to assist them in developing a Master Plan for the fire department to address its immediate needs and those projected for the next decade. The motivation for this plan has been a recent transition in leadership at the department and the desire to have an outside perspective on the current situation of the department as it approaches the likely needs for the future.

AVFD is approaching this planning process from a position of strength. It has a robust and active volunteer workforce with the necessary equipment, apparatus and stations to perform the vital community service of the fire department. The Town has made essential investments to help support the workforce and ensure it is properly equipped and plans more capital investment going forward.

However, the Town and AVFD are aware of potential challenges in the future. Volunteer fire services across the country are struggling to recruit and retain the necessary personnel to protect their communities. While there has been steady investment in equipment and apparatus, AVFD has several apparatus that are approaching the end of their service life and will need to be replaced. The fire stations have had been maintained for functionality but not seriously renovated in more than thirty years. The Town of Avon is growing in population and there is a steady stream of residential and commercial development that is increasing the demand for service.

Key Findings

Through a series of interviews, information requests, site visits by CGR's team and a survey of AVFD membership, we have developed a comprehensive understanding of the existing operations of AVFD. The findings that will be most important in identifying the path for AVFD and the Town over the next decade are identified in this section. We focus on objective facts as much as possible, but certain subjective perspectives can serve as an important influence on the future of AVFD.

Community

- Town of Avon has had steady growth over the last century. In the last decade, its population has grown about 5 percent, to 18,932. Development in process or proposed could lead to another 5 to 10 percent growth in the next decade.
- The Town supports AVFD through an annual grant of about \$790,000. The Town also supports the department through its Capital Improvement Program and several employees that support the activities of the department. The Town provides much of the vehicle maintenance, rents the fire hydrants, and provides for dispatching through the police department.

Personnel

- Over 170 people are members of the Avon Volunteer Fire Department.
 - As of the start of 2022, 58 are recognized as active firefighters and nine more serve in the fire police role.
 - This represents about 3.2 people per 1,000 who serve as volunteer firefighters. This is more than twice the median rate of 1.25 for volunteer departments in similarly sized communities in the Northeast.
- AVFD has implemented both a Length of Service Awards Programs and Expense Reimbursement program to support continued volunteer activity.
- The membership of AVFD has remained relatively level in recent years.

Highlights from CGR's survey of members include:

- Ninety-eight Avon volunteers responded to the survey.
- Respondents volunteer an average (mean) of 13 hours per week.
- Responses indicate a split in attitudes within the department, as some respondents report a positive experience while others report a negative one.
- Nearly two-thirds (64%) are either very likely or somewhat likely to recommend volunteering to friends or neighbors. A fifth of respondents were somewhat or very unlikely to recommend it.
- About 70% feel that Avon FD has not done enough to retain its members. A feeling of belonging and inclusion, being part of a team, is rated as the top factor in retaining members. Better advertising is suggested as the best way to recruit new volunteers.
- A majority, 52%, state they are somewhat or very likely to continue volunteering over the next five years, while a quarter state they are somewhat or very unlikely to continue. Interior firefighters are more likely to report willingness to continue volunteering, with 61% somewhat or very likely to continue.
- Equipment is seen as the top department strength, while operational leadership is seen as the top weakness.
- Respondents prioritize improvements to fire stations as the top area for resource investment.
- Some respondents express a need for greater appreciation and respect for volunteer contributions, including recognizing and valuing their input.
- The largest barriers to volunteering were identified as: Time pressures from personal life; Time pressures from work; and Organizational leadership being inadequate.

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- When asked what volunteers feel are the most successful actions for retaining members, a feeling of belonging, a feeling of being needed and recognition of the community were the top ranked ideas. Incentives had comparatively low rankings.
 - Equipment, volunteers, the professionalism of the organization, quality of apparatus and training were the top strengths of the department identified in the survey.
 - Operational leadership, department atmosphere, quality of stations and internal communication were identified as the top weaknesses in the department.

Demand for Service

- AVFD has an average of 1.7 calls per day, or about 12 calls per week.
- 75 percent of the calls come in between 8:00 am and 8:00 pm
- Call volumes stay relatively stable across weekdays, declining slightly on Saturdays and declining more on Sundays.
- Calls for service generally stay in the range of 40-60 calls per month, with slightly fewer in the winter and more in the summer months.
- The most common type of call is a false alarm (37.5%), followed by hazardous conditions (20%), and service calls (14%). Fires of any type represent only 6% of calls.
- AVFD typically responds to 50 percent of calls in less than 5 minutes, and 80 percent of calls in less than 13 minutes.

Apparatus and Equipment

- Engines 9, 10 and 14 are the three oldest Engines, at 29, 22 and 21 years, respectively. Engine 9 was removed from service during the project.
- Rescue 8 is the newest apparatus in the fleet, going into service in 2020. It was dispatched 237 times and arrived on scene 65% of the time.
- Ladder 12 is one of the oldest, at 21 years, and also one of the busiest, with 344 dispatches in 2021, but only arriving on scene 18% of the time.
- Tanker 20, the oldest front-line apparatus, at 25 years, was dispatched 27 times and arrived on scene 11 times, or about 41% of the time.
- The department purchased new SCBAs in 2019 using a grant combined with Town funds.
- AVFD's radio system is in need of an upgrade that is underway, starting with a new primary dispatch and receiver antenna.
- Current inventories of tools and appliances in service and carried on the apparatus are consistent with today's modern firefighting standards. The

department has state-of-the-art equipment that is utilized for extrication and special operations at the scene of incidents.

- AVFD follows a proper maintenance program for its equipment such as hoses, SCBAs, ladders and pumps.
- The current capital improvement plan anticipates purchasing a new ladder truck and a new engine within the next two years.

Stations

- The existing station locations provide good distribution coverage for response for engines and the ladder. However, there is a gap of poor coverage in the eastern third of the Town and much of Station 2's coverage area extends into the Town of Canton.
- Station 1 is located near the commercial center of the Town. It is in need of renovations to respond to wear of the facility, the changing demands for the department and to address modern fire department operations. There should also be consideration for expansion of the facility to address storage needs.
- Station 2 is the only station owned by the department instead of the Town. It is in the north-west corner of the town in the Secret Lake community. It no longer functions well as a fire station, despite recent renovations. The company associated with the station has been reassigned. The apparatus at this station do not typically respond to calls.
- Station 3 is the station closest to the geographic center of the Town. It has been expanded and renovated in recent years to address the needs of the modern fire service. However, the station has outlived its usefulness and, despite additions and repairs, its location on the site, proximity to the road, bay widths, depths and heights will continue to limit the proper effective functionality of Station No. 3 compared to a newer adequately sized facility.
- Station 4 serves the south-west portion of the Town. The bays in Station No. 4 are minimum width but are functioning. The facility has undergone recent renovations that have improved its appearance and function. Station No. 4 can continue to effectively serve the people of the Town of Avon. There are items that need to be completed that are part of normal maintenance to any Station.
- Plans for the future of the fire stations should include expanding storage for equipment, support apparatus and necessary documents. Some existing storage could be consolidated by eliminating obsolete or extraneous equipment and only keeping mandatory records.
- Improved heating plants and tighter building envelopes will lead to more energy-efficient operations in the future.

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- Any building renovations should consider the possibility of living spaces for volunteer or career firefighters.

Opportunities for Action

In general, the Avon Volunteer Fire Department is meeting the needs of the residents of Avon. This section of the report identifies some opportunities for actions that the Department and/or Town could undertake to improve the operations today, or in the near future. Where appropriate, cost estimates are included and tradeoffs are identified. The assumptions that are underlying these opportunities include:

- Volunteer firefighters will be essential for the continued success of AVFD.
- Recruiting training and retaining volunteer firefighters, especially interior qualified individuals, will be more difficult in the future.
- The Town has the financial capacity to support the continued operation of AVFD.
- The Town will continue to support AVFD with clerical staff and allow town employees, such as the fire marshal staff and public works employees, to respond to calls when appropriate.
- Demand for services will increase, but by small increments.
- A private ambulance service will remain the primary provider of EMS in the community.
- Avon Police will be the primary dispatch for the fire department.
- The residents will continue to support investment in AVFD, although the financial support will need to be balanced against other needs in the community.

The opportunities are divided into five primary categories: Apparatus, Equipment, Buildings, Personnel and Operations.

Apparatus

- Fleet size is appropriate but the fleet needs to be modernized. The Town should be prepared to purchase four apparatus at the estimated cost of \$4.5 million in the next 5 to 7 years.
- Care of ancillary equipment should be taken into consideration during any renovations, and it may be possible to reduce the number of these vehicles.
- Consider swapping the Rescue and Ladder Truck locations for tactical purposes.
- Replace the Tanker when it reaches the end of its service life.

Equipment

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- Develop an equipment replacement plan to cope with replacing the variety of essential equipment such as SCBAs, turnout gear, thermal imaging cameras, rescue tools, nozzles and compressors.

Buildings

- Address the current functional deficiencies at the fire stations, ranging from adding fire alarm systems at three stations, to addressing safety concerns such as eyewashes and decontamination showers.
- Conduct a capital-building effort to renovate Station One and replace Station Three to bring the department's operations to current standards. Two scenarios are detailed in the report, ranging from an estimated \$10.5 to \$12.5 million. Either scenario will improve the current operations of AVFD through better safety features and more space for apparatus and equipment. Additionally, they will address the pressing needs of the future for space for personnel.

Personnel

The volunteer members of the AVFD are the core of the organization. Together, they provide an invaluable service to the Town of Avon. They are providing an excellent service to the Town. However, if the department is not able to consistently meet performance thresholds, it may be necessary to change the paradigm of response. This section details suggestions around recruiting, retention and training to help support the existing volunteer model.

There are also descriptions regarding several different possibilities for paid staff, including station assistants to help with routine tasks at the fire stations. The estimated cost of this program would be about \$150,000, annually. If the decision were made to add firefighting staff to supplement the volunteers, this could range from a daytime-only option of about \$490,000, annually, up to a 24-hour operation that would cost about \$2.2 million.

Operations

There are several operational suggestions for AVFD to consider for improving the operations in its department with minimal additional costs. The opportunities include: establish duty shifts for volunteers to standby at the stations to be ready to respond; continue to release town employees to respond to calls; establish automatic aid agreements for certain areas of the Avon; and switch some responses to non-emergency when there is little likelihood of harm to person or property.

Choosing Among the Opportunities

The Town of Avon and Avon Volunteer Fire Department are faced with difficult decisions to choose among the opportunities that are laid out in this report. The

decisions among apparatus and building options will have implications for at least the next decade and beyond in the likely event there is a decision to bond for the work related to the buildings. The Town provides the funding for AVFD and needs to balance the fire services needs with all the other services needed in the community. The expenses suggested in this plan are between \$10.5 million and \$12.6 million for capital-building needs and about \$20 million for apparatus, which will need to be spread over the next twenty years. The costs for the capital-building needs are based on current estimates and will likely increase if they are not addressed soon. The cost estimates for the apparatus include a 5% annual inflation over the planning period, which, although reasonable by historical measures, seems low in 2022.

The master plan also contemplates that the Town may soon be faced with annual staffing expenses for a fire department. These expenses range on the low end from \$150,000 annually for station assistants, to over \$2.2 million for a staff of 18 full-time employees to assure an adequate 24-hour response. These staffing expenses illustrate the value of the dedicated volunteers of AVFD and the multiplier effect they provide from the funding they receive to operate the existing volunteer organization.

Acknowledgements

The members of the steering committee were:

- Bruce Appell, Chief of AVFD and Fire Marshal for Town of Avon
- James Speich, former Town Council member and firefighter
- Brandon Robertson, Town Manager
- Grace Tiezzi, Assistant Town Manager

We are grateful for the numerous additional members of the Avon Volunteer Fire Department and Town Staff that participated in interviews and provided information to inform the report.

Staff Team

Katherine Bell assisted with data analysis and mapping. Kieran Bezila assisted with report development and budget analysis. James Harrington provided expert opinion related to the fire service and aided in developing the report. Tathagata Mukherjee assisted with data analysis.

LaBella PC provided architectural services as part of the team. David Kaye and Daniel Pieters conducted a site visit and developed the materials included in this report.

Table of Contents

Summary i

Introduction..... 1

Key Findings 1

Opportunities for Action..... 8

 Apparatus 8

 Equipment..... 12

 Buildings 13

 Personnel..... 21

 Operations 25

 Choosing Among the Opportunities..... 28

Fire Service Profile 29

 Town Role..... 29

 Personnel..... 29

 Apparatus 34

 Equipment..... 36

 Stations Overview..... 37

 Coverage Map 40

 ISO Report..... 43

 Calls for Service 46

 Communications 52

 Finances 53

 Membership Survey 56

Town Demographic Overview..... 78

Appendix A: Detailed Member Activity 81

Appendix B: Detailed Station Review..... 87

Appendix C: Full Calls for Service Grid..... 88

Appendix D: Drawings for Potential New Stations..... 94

Appendix E: Glossary 95

Introduction

The Town of Avon and the Avon Volunteer Fire Department, Inc. (AVFD) engaged the CGR team to assist them in developing a Master Plan for the fire department to address its immediate needs and those projected for the next decade. The motivation for this plan has been a recent transition in leadership at the department and the desire to have an outside perspective on the current situation of the department as it approaches the likely needs for the future.

AVFD is approaching this planning process from a position of strength. It has a robust and active volunteer workforce with the necessary equipment, apparatus and stations to perform the vital community service of the fire department. The Town has made essential investments to help support the workforce and ensure it is properly equipped and plans more capital investment going forward.

However, the Town and AVFD are aware of potential challenges in the future. Volunteer fire services across the country are struggling to recruit and retain the necessary personnel to protect their communities. While there has been steady investment in equipment and apparatus, AVFD has several apparatus that are approaching the end of their service life and will need to be replaced. The fire stations have had been maintained for functionality but not seriously renovated in more than thirty years. The Town of Avon is growing in population and there is a steady stream of residential and commercial development that is increasing the demand for service.

The process to develop the master plan involves gathering information about the current operations and the community. This report is written with the Key Findings and Opportunities for Action as the first two sections. The Key Findings are drawn from the information gathered in the project. CGR also considers industry standards and national trends when we look to develop a plan for the department going forward. The plan is developed as a series of opportunities for the Town and AVFD to consider. They are presented with relative importance and probable impact identified. The report then follows with the detailed Fire Service Profile, Community Profile and several appendices that serve as the supporting information.

Key Findings

Through a series of interviews, information requests, site visits by CGR's team and a survey of AVFD membership, we have developed a comprehensive understanding of the existing operations of AVFD. The findings that will be most important in identifying the path for AVFD and the Town over the next decade are identified in this section. We focus on objective facts as much as possible, but certain subjective perspectives can serve as an important influence on the future of AVFD.

Community

- Town of Avon has had steady growth over the last century. In the last decade, its population has grown about 5 percent, to 18,932. Development in process or proposed could lead to another 5 to 10 percent growth in the next decade.
- With the growth of population, the median age is also climbing, from 42 in 2000 to 45 in 2020.
- As part of this growth, there is substantial mixed-use and commercial development along Main Street, including the Village Center Project.
- The Town's 2016 Plan of Conversation and Development has suggestions for both in-fill development and open-space conservation that will maintain the characteristics of the community, but likely increase the demand for fire service.
- The Town supports AVFD through an annual grant of about \$790,000. The Town also supports the department through its Capital Improvement Program and several employees that support the activities of the department. The Town provides much of the vehicle maintenance, rents the fire hydrants, and provides for dispatching through the police department.

Personnel

- Over 170 people are members of the Avon Volunteer Fire Department.
 - As of the start of 2022, 58 are recognized as active firefighters and nine more serve in the fire police role.
 - This represents about 3.2 people per 1,000 who serve as volunteer firefighters. This is more than twice the median rate of 1.25 for volunteer departments in similarly sized communities in the northeast.
- AVFD makes extensive use of its record management system. Members are encouraged to track their individual activities including calls, trainings, committee meetings and other department related activities.
- AVFD has implemented both a Length of Service Awards Programs and Expense Reimbursement program to support continued volunteer activity. The LOSAP program is a defined contribution program awarded to members based on their successfully meeting certain requirements. The Expense Reimbursement program pays each member quarterly a de minimis fixed amount per call or training as a reimbursement for mileage to travel to the call. LOSAP is an annual expense of \$47,000 and Expense Reimbursement is \$110,000.
- Highlights from CGR's survey of members include:
 - Ninety-eight Avon volunteers responded to the survey.
 - Respondents volunteer an average (mean) of 13 hours per week.

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- However, this average is shaped by extremes at both the high and low end that make this distribution of hours less even than it might appear. The median (middle value with an equal number of responses above and below) is 5 hours per week.
 - Within the last five years, between 3-7 volunteers report joining per year.
 - Responses indicate a split in attitudes within the department, as some respondents report a positive experience while others report a negative one.
 - There are not clear patterns of satisfaction or dissatisfaction that correspond with age, years of service to the department, or key roles in the department; rather, satisfaction and dissatisfaction appear to cut across almost all of these factors in similar proportions.
 - Nearly two-thirds (64%) are either very likely or somewhat likely to recommend volunteering to friends or neighbors. A fifth of respondents were somewhat or very unlikely to recommend it.
 - About 70% feel that Avon FD has not done enough to retain its members.
 - A feeling of belonging and inclusion, being part of a team, is rated as the top factor in retaining members.
 - Better advertising is suggested as the best way to recruit new volunteers.
 - A majority, 52%, state they are somewhat or very likely to continue volunteering over the next five years, while a quarter state they are somewhat or very unlikely to continue.
 - Interior firefighters are more likely to report willingness to continue volunteering, with 61% somewhat or very likely to continue.
 - Slightly more than half of respondents report they are somewhat or very likely to continue volunteering if paid/career staff are added. A bit more than a quarter (27%) report being somewhat or very unlikely to continue at the same level.
 - Volunteers report being least available on weekdays from 6 am to 6 pm, although a number of interior firefighters do report 24/7 availability.
 - Equipment is seen as the top department strength, while operational leadership is seen as the top weakness.
 - Nearly half of respondents, do not want to change the current level of EMS involvement.
 - Respondents are split on their ranking of operational and board leadership, with the largest proportion rating it as "average" in both cases, and nearly equal amounts rating it as strong or as weak.

- Respondents prioritize improvements to fire stations as the top area for resource investment.
- Some respondents express a need for greater appreciation and respect for volunteer contributions, including recognizing and valuing their input.
- A third of members in the department report being 50. 53% report being more than 50 years old and 15% chose to skip the question.
- 11% of department members identified as being female, which is on par with volunteer departments elsewhere.
- Most respondents (38 of 73) who answered the question indicated they are very or somewhat likely to remain active volunteers over the next five years. Among the interior qualified firefighters, 16 of 26 answered that they are somewhat or very likely to remain active.
- The largest barriers to volunteering were identified as:
 - Time pressures from personal life;
 - Time pressures from work;
 - Organizational leadership being inadequate.
- When asked what volunteers feel are the most successful actions for retaining members, a feeling of belonging, a feeling of being needed and recognition of the community were the top ranked ideas. Incentives had comparatively low rankings.
- More than half of survey respondents (52%) would be very likely or somewhat likely to continue volunteering in their current level of activity if paid staff is added.
- Equipment, volunteers, the professionalism of the organization, quality of apparatus and training were the top strengths of the department identified in the survey.
- Operational leadership, department atmosphere, quality of stations and internal communication were identified as the top weaknesses in the department.

Training

- An array of topics is included in the training sessions throughout the course of the year. Numerous subjects are addressed during the year to meet Federal, State and Local training requirements, in addition to the training requirements set forth by the Avon fire department. Live fire, driver training, rescue familiarization, ladder operations, strategy and tactics are just a few of the topics covered during the training programs.
- Using the departmental records management system, we are able to get an overview of the training that has been taken by the members in the last four

years. More than 200 training session titles were recorded. Some trainings were small group sessions, such as driver training, while others, such as annual safety update sessions, included nearly all members of the department.

- One common denominator that came up during the conversations with members of the department was the required number of hours for firefighter training programs. Several members felt that the training hour requirements are too difficult to achieve. Some members feel that the increase in training hours will drive members away from joining the fire department in the future. Members also believe that training requirements are becoming too burdensome.

Demand for Service

- AVFD has an average of 1.7 calls per day, or about 12 calls per week.
- 75 percent of the calls come in between 8:00 am and 8:00 pm
- Call volumes stay relatively stable across weekdays, declining slightly on Saturdays and declining more on Sundays.
- Calls for service generally stay in the range of 40-60 calls per month, with slightly fewer in the winter and more in the summer months.
- The most common type of call is a false alarm (37.5%), followed by hazardous conditions (20%), and service calls (14%). Fires of any type represent only 6% of calls.
- 64% of calls had between 5 and 14 members indicate they were responding.
- 53% of calls occur within a 1.5-mile drive of a station. Station 1 had the most calls, at 25% of all calls.
- 35% of calls occur within a 2.5-mile drive of the ladder truck at Station 3.
- The median response time for calls between 8 am and 8 pm is 5 minutes. 90 percent of calls are answered within 15 minutes during those times. Early morning (4:00 am to 8:00 am) and Nighttime (8:00 pm to midnight) are slightly longer. On the overnight (midnight to 4:00 am), the median response time is 10 minutes and 90th percentile is 19 minutes.

Apparatus and Equipment

- The busiest Engine (based on assignments in 2021) was Engine 14, with 379 dispatches, followed by Engine 7 (373) and Engine 11 (289). Each arrived on scene for about 40% of their dispatches. Engine 10 was dispatched 287 times but only arrived on scene 13% of the time.
- Engines 9, 10 and 14 are the three oldest Engines, at 29, 22 and 21 years respectively. Engine 9 was removed from service during the project.

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- Rescue 8 is the newest apparatus in the fleet, going in service in 2020. It was dispatched 237 times and arrived on scene 65% of the time.
 - Ladder 12 is one of the oldest, at 21 years, and also one of the busiest, with 344 dispatches in 2021, but only arrived on scene 18% of the time.
 - Tanker 20, the oldest front-line apparatus, at 25 years, was dispatched 27 times and arrived on scene 11 times, or about 41%.
 - There may be some duplication among the smaller vehicles owned by the department, based on the current operating model of the department.
 - The department purchased new SCBAs in 2019 using a grant.
 - AVFD's radio system is in need of an upgrade that is underway starting with a new primary dispatch and receiver antenna.
 - Current inventories of tools and appliances in service and carried on the apparatus are consistent with today's modern firefighting standards. The department has state-of-the-art equipment that is utilized for extrication and special operations at the scene of incidents.
 - AVFD follows a proper maintenance program for its equipment such as hoses, SCBAs, ladders and pumps.
 - The current capital improvement plan anticipates purchasing a new ladder truck and a new engine in the next two years. The new engine may have extended water-carrying capacity.
 - The department has a large amount of ancillary equipment and vehicles that support the special operations and unique situations the department faces on a regular basis. This additional equipment is often stored outside of the fire stations which exposes them to the elements during the winter months.

Stations

- The existing station locations provide good distribution coverage for response for engines and the ladder. However, there is a gap of poor coverage in the eastern third of the Town and much of Station 2's coverage area extends into the Town of Canton.
- A major source of calls (Old Farms School) falls outside the 1.5-mile engine and 2.5-mile ladder truck ideal coverage area.
- The calls for service along Main Street are almost all outside of the 2.5-mile coverage area for a ladder truck.
- Station 1 is located near the commercial center of the Town. It is in need of renovations to respond to wear of the facility, the changing demands for the department and to address modern fire department operations. There should also be consideration for expansion of the facility to address storage needs.

- Station 2 is the only station owned by the department instead of the Town. It is in the north-west corner of the town in the Secret Lake community. It no longer functions well as a fire station, despite recent renovations. The company associated with the station has been reassigned. The apparatus at the station do not typically respond to calls.
- Station 3 is the station closest to the geographic center of the Town. It has been expanded and renovated in recent years to address the needs of the modern fire service. However, the station has outlived its usefulness and, despite additions and repairs, its location on the site, proximity to the road, bay widths, depths and heights will continue to limit the proper effective functionality of Station No. 3 compared to a newer adequately sized facility.
- Station 4 serves the south-west portion of the Town. The bays in Station No. 4 are minimum-width but are functioning. The facility has undergone recent renovations that have improved its appearance and function. Station No. 4 can continue to effectively serve the people of the Town of Avon. There are items that need to be completed that are part of normal maintenance to any Station.
- Plans for the future of the fire stations should include expanding storage for equipment, support apparatus and necessary documents. Some existing storage could be consolidated by eliminating obsolete or extraneous equipment and only keeping mandatory records.
- Improved heating plants and tighter building envelopes will lead to more energy efficient operations in the future.
- Any building renovations should consider the possibility of living spaces for volunteer or career firefighters.

Opportunities for Action

In general, the Avon Volunteer Fire Department is meeting the needs of the residents of Avon. This section of the report identifies some opportunities for actions that the Department and/or Town could undertake to improve the operations today or in the near future. Where appropriate, cost estimates are included and tradeoffs are identified. The assumptions that are underlying these opportunities include:

- Volunteer firefighters will be essential for the continued success of AVFD.
- Recruiting training and retaining volunteer firefighters, especially interior qualified individuals, will be more difficult in the future.
- The Town has the financial capacity to support the continued operation of AVFD.
- The Town will continue to support AVFD with clerical staff and allow town employees such as the fire marshal staff and public works employees to respond to calls when appropriate
- Demand for services will increase, but by small increments.
- A private ambulance service will remain the primary provider of EMS in the community.
- Avon Police will be the primary dispatch for the fire department.
- The residents will continue to support investment in AVFD, although the financial support will need to be balanced against other needs in the community.

The opportunities are divided into five primary categories: Apparatus, Equipment, Buildings, Personnel and Operations.

Apparatus

Fleet Size is Appropriate, but Needs to Be Modernized

For the Town of Avon, the number of apparatuses is appropriate by industry standards. There is no need to add or subtract from the number of front-line firefighting engines (numbering four and one mini) or aerial trucks (one). In addition, the presence of a heavy rescue truck and a tanker are a benefit to the community. The rescue truck carries specialized rescue equipment and fills the requirement of a service company under the ISO Public Protection Classification plan.

The Town and AVFD have purchased a rescue truck and two engines in the last five years. However, the age of several of the other apparatuses is beyond the recommended replacement age from the National Fire Protection Association. NFPA 1901 suggests that an engine should be considered for replacement or moved to reserve status after 15 years and replaced at 20 years and an aerial device should be

replaced at 20 years. Rescue and Tanker trucks lack a specific recommendation and should be considered on an individual basis. Apparatuses that were not manufactured to the applicable NFPA fire apparatus standards or that are over 25 years old should be replaced. (Refer to the glossary for a further explanation on NFPA standards.)

The department should establish a 10-to-20-year Capital Improvement Plan (CIP) replacement program for fire apparatus based upon current NFPA Standard 1901¹. The table below identifies the year of construction and the ideal replacement schedule. The timelines are dependent on a good maintenance schedule. AVFD has identified that Engine 14, although older than Engine 10, should be replaced first based on its condition.

Apparatus	Year of Construction	Ideal Replacement
Ladder 12	2001	Now
Engine 14	2001	Now; no later than 2026
Engine 10	2000	Now; no later than 2025
Tanker 20	1997	Soon
Engine 7	2016	2031
Engine 11	2016	2031
Engine 13 (Mini)	2018	2033
Rescue 8	2020	2035

Using the NFPA guidance, the department should replace an aerial (Ladder 12), age 21, and one engine, age 25, (Engine 14) as soon as feasible. The aerial is of particular concern because of a potentially expensive needed repair. The town should be prepared to purchase another engine and a tanker in the next five to seven years. The total expense for apparatus in the next five to seven years is estimated at \$4.5 million. The anticipated price is based on an annualized 5% inflation from current prices, which is optimistic. The actual costs might come in closer to \$5 million.

Replacement Year	Apparatus	Anticipated Expense
2023	Ladder 12	\$1,800,000
2024 to '25	Engine 14	\$980,000
2025 to '27	Engine 10	\$1,150,000
2026 to 29	Tanker 20	\$600,000
	Total Expense	\$4,530,000

¹ In the last 10 to 15 years, much progress has been made to upgrading functional capabilities and improving the safety features of fire apparatus. Apparatus more than 15 years old might include only a few of the safety upgrades required by the recent editions of the NFPA fire department apparatus standards. Because the changes, upgrades, and fine-tuning to NFPA 1901 have been truly significant, especially in safety, fire departments should seriously consider the value (or risk) to firefighters of keeping fire apparatus more than 15 years old in first-line service.

Looking out over a twenty-year time horizon, the Town should plan to replace the entire fleet (although, if well maintained, a ladder truck might be extended to 25 years). Using a similar 5% annual increase in cost, the anticipated expense for the apparatus over the following decade-plus (2030 to 2042) is estimated to be \$13 million.

Year to Replace (Approximate)	Apparatus	Forecast Cost
2031	Engine 7	\$ 1,319,000
2032	Engine 11	\$ 1,385,000
2035	Rescue 8 (Could be combined with other apparatus function)	\$ 2,216,000
2040	Engine 10	\$ 2,046,000
2041	Engine 14	\$ 2,148,000
2042	Ladder 12	\$ 3,980,000
	Total Forecast Costs	\$ 13,094,000

The costs of the apparatus are clearly substantial for the Town and AVFD. In order to accomplish the immediate needs, it may be necessary to bond for the purchase of the aerial and engine, especially in light of the building recommendations that follow. Going forward, the Town should consider including in the capital improvement plan the purchase of new apparatus every two years to keep the fleet of eight or nine apparatus under 20 years old.

Care of Ancillary Apparatus

The department has a large amount of ancillary equipment (three trailers) and vehicles (six pickups or SUVs) that support the special operations and unique situations the department faces on a regular basis. This additional equipment is often stored outside of the fire stations, which exposes them to the elements during the winter months. Due to the lack of inside storage for these vehicles, they are subject to extreme elements that can delay the response of these vehicles during the winter months, also deteriorating the life expectancies of these vehicles. Consideration should be given whether to incorporate several of these vehicles into a single unit. In addition, when any new fire stations are considered, the number of apparatus bays should be evaluated to accommodate these vehicles.

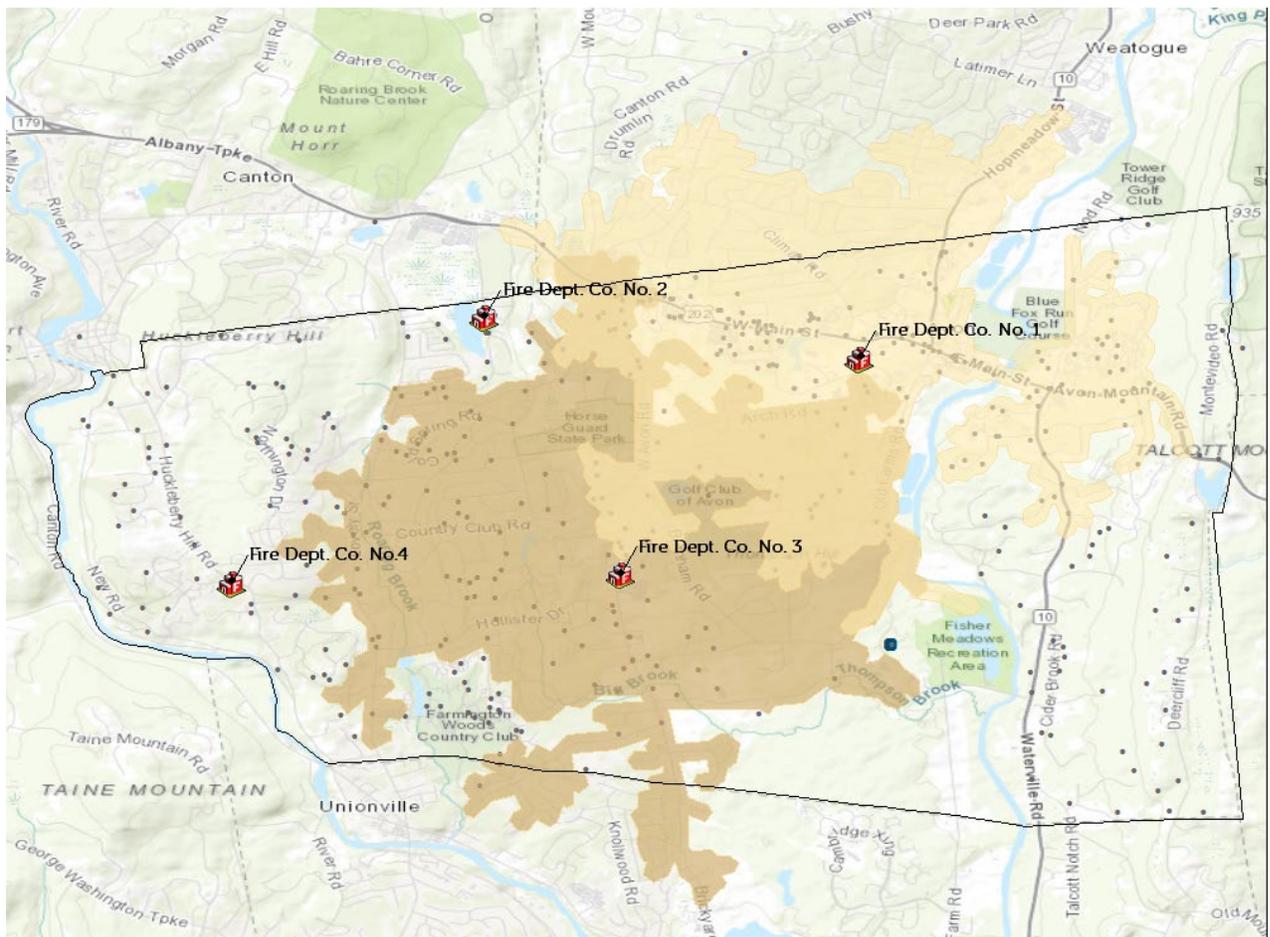
These vehicles should also be placed on a replacement schedule to ensure that they are replaced at an appropriate time. The current fleet ranges from 3 to 20 years, with the older vehicles being considered reserve or seeing limited use.

Consider Swapping the Rescue and Ladder Truck Locations

Ladder 12 is kept at Station Three and Rescue 8 is kept at Station One. Keeping the two at separate stations is appropriate for both tactical purposes and for the ISO PPC

rating. The ISO rating process considers the geographic distribution of ladder companies and service (rescue) companies. They suggest a proper distribution is about 2.5 miles from each other, to cover the geography. If one of the apparatuses each is kept at Station One and Station Three, respectively, 67% of calls are within 2.5 miles of one or both of those stations. The map below shows the distribution of calls and the response areas of the two stations.

Ladder 12 should be relocated to Station One. The new Ladder 12, when it arrives in 2023 or 2024, will not fit in the current Station Three. Also, the hazards requiring the capabilities of a ladder truck are more prevalent in the northern third of the town, particularly along Main Street. Once the switch is made between the stations, a specific training program should be instituted to ensure that the members who frequently respond to those stations are comfortable and proficient with the features of those apparatus.



Regarding other apparatus, each station should have an engine kept at it. For Station Two, this must be an engine that fits into the limited space such as Engine 13, a mini-engine. The tanker should be located either at Stations 3 or 1 for better access to areas in Town without hydrants.

Status Quo: Replace Tanker When Ready

AVFD is beginning to consider replacing its 25-year-old tanker. The tanker has a water tank with 3,200 gallons on board and also has a 1,250-gpm pump that allows it to act as a tender or suppress a fire. The amount of water on board could not be replaced by any other single vehicle, except a dedicated tanker. The tanker's water is most needed for calls on the eastern side of Town where there isn't municipal water nor any imminent plans for hydrants.

As part of the engagement, CGR considered if AVFD could operate without a dedicated tanker. The replacement cost would likely be between \$450,000 and \$650,000, depending on the features. The new ladder truck will have a water tank (likely 300 gallons), while the current one does not. As AVFD replaces its engines, it could outfit each of them with larger water tanks (a minimum of 1,000 to 1,250 gal) compared to 750 gal on some of the current engines. This would help improve the amount of water available on a scene in the absence of a dedicated tanker. Also, the AVFD could continue to work with the Town to expand the number of cisterns available to support fire suppression in the area without hydrants.

However, after consideration of the alternatives, CGR suggests retaining the tanker and replacing it with a similar vehicle when appropriate based on its mechanical condition. The tanker carries 3,200 gallons of the 8,000 gallons of water currently available on the first alarm AVFD apparatus which plays an important role on calls in certain areas of Avon.

Equipment

Develop an Equipment Replacement Plan

Current inventories of tools and appliances in service and carried on the apparatus are consistent with today's modern firefighting standards. The department has state-of-the-art equipment that is utilized for extrication and special operations at the scene of incidents. Proper budgeting and planning should still be considered when it comes to new technology being introduced into the fire service. The Avon Fire Department continues to follow this trend when new tools and appliances are introduced.

The SCBAs will need replacement in about 2029. The initial purchase was funded for \$278,000 from a FEMA grant in 2019 with additional funds from the Capital Improvement Plan. While it might be possible to win another grant, the Town should be prepared to purchase the replacement equipment either in one transaction or spread over several years.

There are other expensive equipment items, such as SCBA compressor, turnout gear, thermal imaging cameras, rescue tools and nozzles, that have a finite life cycle. The Town and AVFD will need to allocate money on a regular basis to keep the equipment

up to date in a manner similar to the amount planned in 2023 in the Town's CIP. The Town is allocating funds specially for personal protective equipment, rescue equipment and firefighting equipment. A consistent allocation would allow for long-term planning to replace these necessary items as needed.

Buildings

The Town of Avon owns and maintains three of the four fire stations that AVFD operates. AVFD owns Station Two in the Secret Lake area. The Town does work with the AVFD to provide for consistent maintenance of the buildings, but the changing needs of the department and uncertainty around future capital expenses have led some maintenance being deferred for each of the stations. Also, the change in the size and functions of the apparatus, combined with the industry adoption of new safety practices, has led to the need for upgraded facilities. Below, we have identified deficiencies of the current fire stations that impair AVFD's ability to perform their mission and provided two different scenarios for substantial building renovation or new construction.

Address Current Functional Deficiencies

This section outlines the concerns regarding the current station conditions. In general, the current AVFD offices appear to be condensed and in need of additional square footage. The Avon Fire Department of 2022 does not fit and does not function safely and efficiently in the dated and relatively tight structures. These conditions developed over time and have reached a point where they need to be addressed to improve the safety of firefighters and the effectiveness of the department. Among the stations, Station Four has the fewest immediate concerns and has no need for substantial repairs. Station Two has a long list of deficiencies and does not currently have volunteers assigned to operate out of it. Because of numerous deficiencies at Station Two, AVFD should consider designating it a reserve station that is used for reserve apparatus and extra supplies². Station One and Station Three both have significant deficiencies that need to be addressed and are essential to the operations of the department. They should be considered for capital improvements as described later. This list of deficiencies is a glimpse of the more prominent concerns at each station.

Station One Deficiencies:

1. The metal framed windows and doors are in need of paint. The glazing is failing at the windows and needs to be replaced along with the glass.
2. Carpet in general is worn and is in need of replacement.

² If Station Two remains a reserve station, AVFD should enter into an automatic aid agreement with Canton to provide a response to potential high impact calls (structure fires, explosions and similar) in this area of Town to ensure a prompt response.

3. Aisle ways between bays in general are narrow and clogged with stored materials.
4. Exterior metal railings are rusted and in need of replacement.
5. Exterior concrete stairs are deteriorated and do not appear to be used frequently. They should be either repaired or removed.
6. Concrete retaining wall finish is spalling and needs to be removed and reapplied. The stone cap needs to be repointed.
7. Exterior concrete needs to be repainted.
8. Building fenestration needs to be caulked.
9. Additional lighting is needed in the parking lot.
10. Asphalt is in need of milling / paving and striping.
11. In general, there is a lack of storage space or an overabundance of materials at the station. Electrical panels are blocked in some locations with stored materials.
12. Exiting the parking lot is unsafe due to the proximity of a blind curve in the road.
13. Gear wash is currently in one of the bays rather than a separate room.
14. SCBA room is cluttered with stored materials.
15. Decon / shower and eyewash are needed.

Station Two Deficiencies:

1. Lintels at overhead doors need to be painted.
2. Wood jambs at overhead doors need to be painted.
3. Repoint cobblestone wall as needed.
4. Repoint cobblestone retaining wall as needed.
5. Bay widths are too narrow resulting in clogged narrow aisle ways.
6. Bay doors are too narrow requiring apparatus to be modified to fit.
7. Bay ceilings are not high enough.
8. Bay depths are too shallow.
9. Unable to walk around apparatus.
10. Inadequate amount of space for storage of equipment.
11. Unable to access gear room with apparatus in bays.
12. Offices are in areas with ceilings less than 6'
13. Office files / storage are in areas with ceilings less than 6'.
14. Gear wash is not available.
15. SCBA room is not available.
16. Decon / shower and eyewash are needed.
17. **Station can not be reasonably upgraded to modern standards.**

Station Three Deficiencies:

1. Bay widths are too narrow resulting in clogged narrow aisle ways.
2. Bay doors are too narrow requiring apparatus to be modified to fit.

3. Bay ceilings are not high enough.
4. Bay depths are too shallow.
5. Unable to walk around apparatus.
6. Carpet is worn.
7. Traffic congestion due to proximity of the High School entrance/exit.
8. Gear washroom is inadequate and is blocked by drying equipment.
9. Gear room is needed.
10. Decontamination shower and eyewash needed.
11. Exterior doors need to be painted.

Station Four Deficiencies:

1. Exterior mechanical room doors need to be replaced.
2. Mill and pave asphalt areas.
3. There is damaged brick in several locations that needs to be replaced / repaired / repointed.
4. Decontamination shower and eyewash needed.
5. Bay dimensions are minimum at 11'-11" Wide x 36' Deep x 10'-0" Tall. However, the apparatus that is stored here fits and is accessible.

Opportunity for Action:

As noted above, there are a variety of deficiencies at the stations used by AVFD. The expense and time required to address them will require several years. It is a recommendation that appropriate Town staff and representatives from AVFD develop a priority ranking to address the deficiencies at the stations. When prioritizing, factors to consider are: safety of workforce, integrity of building, improvement to workflow, aesthetics, and impact on recruitment/retention. The factors can be given different weights in the decision-making process. The key is to establish a planning process that is reevaluated regularly. Because of the current unsettled economy, its not possible to provide estimates for the variety of repairs to address the identified deficiencies.

Capital Building Scenarios

AVFD and the Town should strongly consider a capital-building program for the fire department in order to create the physical space necessary for it to address the needs of the next twenty years and beyond. The two following scenarios have been developed using the following factors:

-
- The existing physical spaces have a number of deficiencies, some of which can be addressed by repair or renovation, but others should be addressed by building new space(s).
 - While AVFD has a fully volunteer firefighting force in 2022, it is reasonable to anticipate the need for some career or paid firefighters in the next ten to twenty years to supplement the volunteers.
 - The size and weight of the fire apparatus will not change substantially in the next twenty years.
 - Other than the potential addition of paid staff, the AVFD will continue to operate in a similar manner going forward, with a similar amount and type of apparatus.
 - AVFD will continue to have access to the joint fire training facility with Farmington.
 - The costs of construction, both new and renovation, will continue to escalate in the future at a rate that exceeds consumer price inflation. From 2021 to 2022, the cost of construction is estimated to have increased by 8%.

Both capital-building scenarios focus on Station One and Station Three which should be addressed before other scenarios are considered. This plan was developed using an approximate ten year time horizon. The current function of AVFD and the demand for services in the community mean that these options are the most likely for having a positive impact on the town in the near future. There are other potential capital needs for AVFD, but they are considered a lower priority. The other needs include: an addition onto Station Four, a new (and relocated) Station Two, and possibly a fifth fire station on the east side of the Town.. Future capital plans should be considered after these initial steps are addressed. Small drawings are imbedded in the report and larger versions are in Appendix D. The scenarios are designed to be illustrative of both function and cost. A full design process with input from the AVFD and Town would be needed to ensure it satisfies the needs of the community.

Scenario 1: Build New Three-Bay Station Three and Substantial Renovation and Expansion of Station One

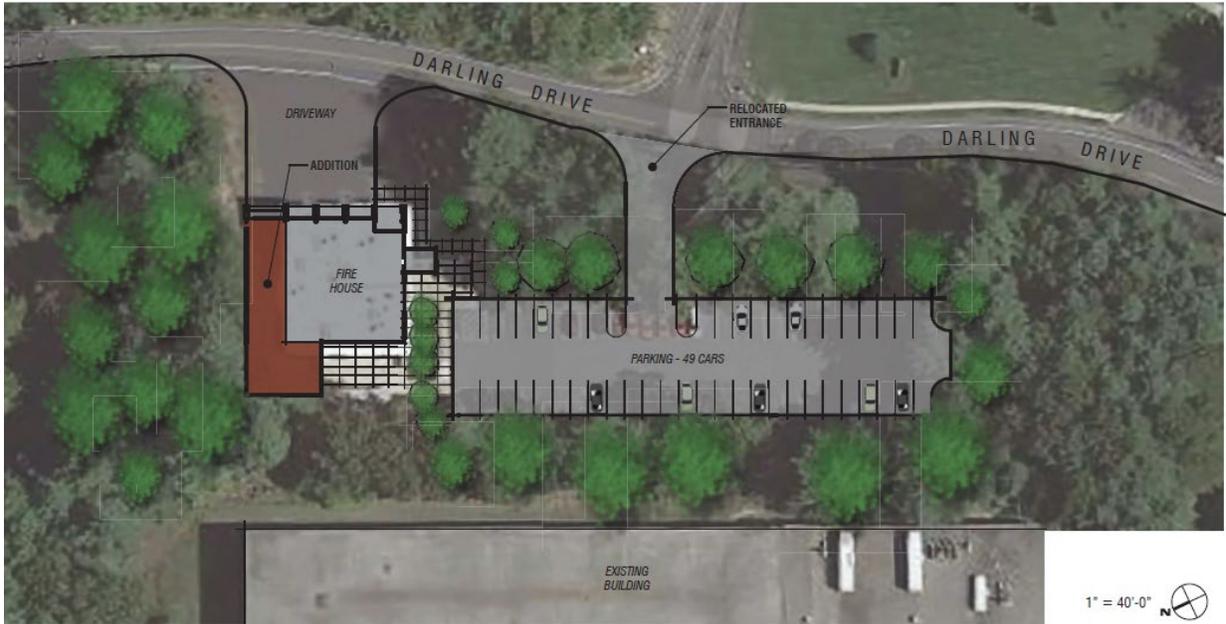
Station Three is located near the geographic center of the town and is adjacent to the high school. The current Station Three has a number of functional deficiencies and is located on a site adjacent to both school and water company land. The building has been updated and expanded several times in an effort to keep pace with the changing demands of the fire service, but those modifications are no longer sufficient. Building a new Station Three to modern fire-station standards would alleviate its deficiencies noted above and would improve the operations of the department. Under this scenario, the new building would be about 6,050 square feet and would be built

across the street from the existing station³. This property is already owned by the Town and AVFD on adjacent lots that appears to be a buildable. The new station would be larger than the existing Station 3 but have similar capabilities. It would have three drive-through 54-foot-long apparatus bays. There would be an office, conference room, restroom facilities, equipment storage space, a gear wash, decontamination space, and a radio room. It should be designed and placed on the lot in such a manner that expansion for additional living space or apparatus could be easily accomplished. As part of this project, some funds would be dedicated to the renovation and repair of the garage on site that holds the antique engine owned by AVFD. The estimated cost of this portion of the project is \$5.1 million, if construction were to begin in 2022.

In conjunction with the new three-bay Station Three , this scenario suggests the renovation and expansion of Station One. Station One currently operates as the headquarters of AVFD and is near the center of the call volume. Station One is 50 years old and is in need of expansion and renovation. This scenario calls for the addition of 4,780 square feet to the existing 10,100, or a 47% increase of space. This would be accomplished by adding an addition on the northside of the building. On the ground floor, there would be a new 54-foot-deep, 20-foot-wide apparatus bay and the excavation of space for a gear wash and SCBA storage. There would also be an elevator and stairway leading to the second floor. On the second floor, above this apparatus bay, would be additional restrooms, four new flex/office spaces, 865 sq. ft. of storage space and a new 42 foot deep, 16-foot-wide bay. This scenario also includes the renovation of second floor and repairs throughout to address the deficiencies identified in the report. As part of this work, the driveway for building would be regraded and brought into alignment with Security Drive to improve safety for those using the building. The estimated cost for this work, based on a 2022 project date, is \$5.4 million.

The total estimated cost for Scenario 1 is \$10.5 million.

³ Building across the street is preferable because the larger lot size would allow for more parking, the proper square footage for the station, and the continuity of operations during the build.

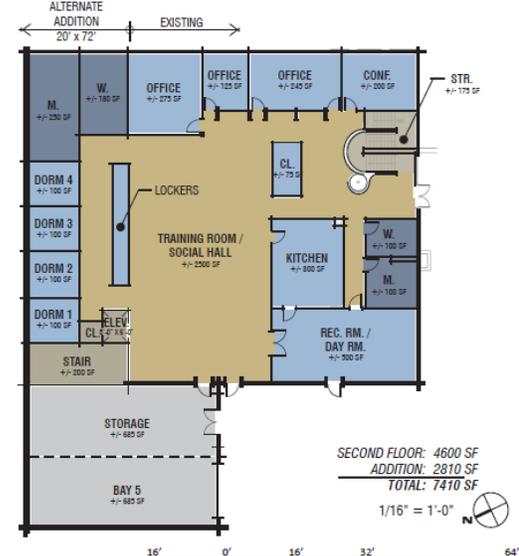
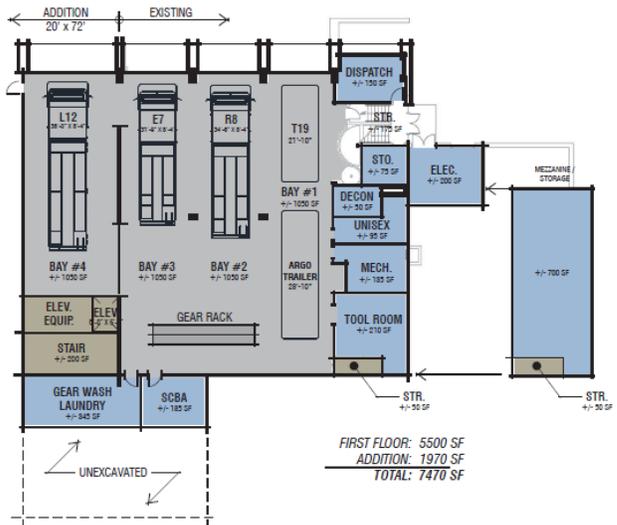


25 DARLING DRIVE
AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT
MAY 2022

STATION 1

PLAN LAYOUT (SITE)
DESIGN SCOPE: FIRE DEPARTMENT
LaBella
Powered by partnership.



25 DARLING DRIVE
AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT
MAY 2022

STATION 1

PLAN LAYOUT
DESIGN SCOPE: FIRE DEPARTMENT
LaBella
Powered by partnership.

Scenario 2: Build New Five-Bay Station Three and Renovation without Expansion of Station One

This scenario effectively shifts the Headquarters for the AVFD to the new Station Three and renovates Station One. The deficiencies and operational challenges mentioned above remain and this is another possible way to address them

The work at Station One would focus on renovating the existing spaces to bring them into alignment with the future needs of the department. The apparatus bay would remain as it is today although repair items from the deficiencies list would be addressed. On the second floor, the training room and social hall would undergo physical updates to include renovating the bathrooms to ADA compliance, replacing flooring, modifying the training room to a dayroom/ open office space, renovating the existing dayroom and one office into a flex spaces. The exact program for this space would be developed in coordination with the AVFD, but it would involve moving both training and administrative spaces to the new headquarters at Station Three. This renovation would also include the regrading and realignment of the driveway to be in line with the Security Drive. The estimated cost of this work is \$3.0 million, for work in 2022.

The proposed Station Three would be a 14,650 sq. ft. facility located across the street from the current station. A small scale drawing appears below and a larger scale in the appendix. This station would be built to current standards for fire stations that including full separated areas for the apparatus, capability to clean firefighting gear, adequate space for tools and storage. There would also be a training room similar in size to the current Station One, 4 flex rooms, 3 offices, a conference room and a control/radio room.

The estimated cost for the build of the new Station Three, including the necessary site work and also the rehabilitation of the garage for the antique apparatus, is \$9.6 million.

The total estimated cost for Scenario # 2 is \$12.6 million if the project were undertaken in 2022.



80' 0' 40' 80' 160' 1" = 40'-0"

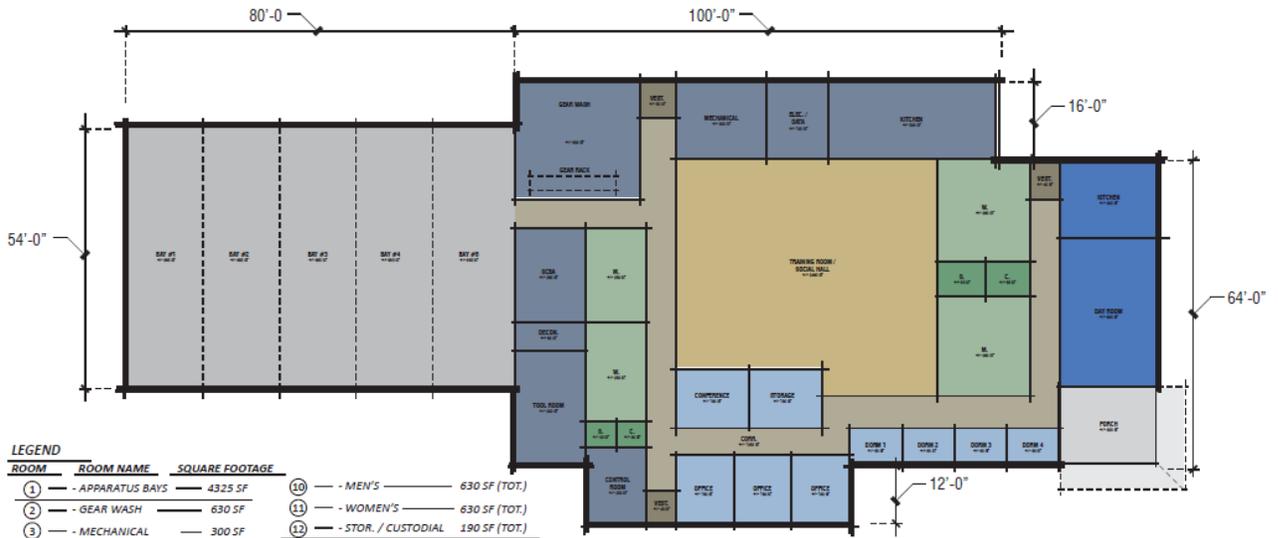


PROPOSED STATION 3

503 WEST AVON ROAD
AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT
JUNE 2022

PLAN LAYOUT (SITE)
DESIGN SCOPE: FIRE DEPARTMENT



LEGEND

ROOM	ROOM NAME	SQUARE FOOTAGE
1	- APPARATUS BAYS	4325 SF
2	- GEAR WASH	630 SF
3	- MECHANICAL	300 SF
4	- ELEC. / DATA	195 SF
5	- KITCHEN	535 SF
6	- SCBA	280 SF
7	- DECON.	80 SF
8	- TOOL ROOM	330 SF
9	- CONTROL ROOM	200 SF
10	- MEN'S	630 SF (TOT.)
11	- WOMEN'S	630 SF (TOT.)
12	- STOR. / CUSTODIAL	190 SF (TOT.)
13	- VEST.	130 SF (TOT.)
14	- CORR.	1350 SF
15	- TRAINING / SOCIAL	2480 SF
16	- CONFERENCE	180 SF
17	- STORAGE	180 SF
18	- OFFICE	480 SF (TOT.)
19	- DORM	320 SF (TOT.)
20	- KITCHEN	300 SF
21	- DAY ROOM	600 SF
22	- PORCH	300 SF

GROSS SQUARE FOOTAGE: +/- 14,645 SF

PROPOSED STATION 3

16' 0' 16' 32' 64' 1/16" = 1'-0"



503 WEST AVON ROAD
AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT
JUNE 2022

DESIGN SCOPE: FIRE DEPARTMENT



Comparison of Scenarios

Either scenario will improve the current operations of AVFD through better safety features and more space for apparatus and equipment. Additionally, they will address the pressing needs of the future for space for personnel. The table below provides comparison regarding the cost and overall outcomes. Scenario 1 has a lower cost (\$10.5 million), with a focus on expanding the current headquarters at Station One and building a new Station Three that meets the current needs of the AVFD but allows for ready expansion in the future. Scenario 2 has additional cost (\$12.6 million) and delivers additional square footage for people and apparatus, as well as a shift in the headquarters facility toward the geographic center of the Town. With Scenario 2, there will be the capability of having staff sleep at either station and/or use “work from home” space.

	Scenario 1	Scenario 2
Station One		
Apparatus Sq. Ft.	4,885	3,150
Admin/Living Sq. Ft.	9,995	6,950
Total Sq. Ft.	14,880	10,100
Planned Apparatus	4 + space for support	3 + space for support
Estimated Cost	\$ 5,401,000	\$ 2,997,000
Station Three		
Apparatus Sq. Ft.	2,595	4,395
Admin/Living Sq. Ft.	3,454	10,250
Total Sq. Ft.	6,049	14,645
Planned Apparatus	3	5
Estimated Cost	\$ 5,128,000	\$ 9,566,000
Total Estimated Cost	\$ 10,529,000	\$ 12,563,000

The estimated costs for either scenario are based on work being done at both stations, which could lead to economies of scale with project management and architectural work. Also, the costs for buildings are in the midst of an unprecedented period of inflation that make projections difficult. Between 2021 and 2022, construction costs increased an estimated 8%. AVFD would need to work with the general contractor to minimize operational

Personnel

The volunteer members of the AVFD are the core of the organization. Together, they provide an invaluable service to the Town of Avon. They are providing an excellent service to the Town. However, there are some concerns about the viability of the fully volunteer firefighting response for the next ten years and beyond. For any alarm, it is

essential to have a minimum of four qualified firefighters to respond, and for a structure fire, it's necessary to have fifteen firefighters respond⁴. If the department is not able to consistently meet these thresholds, it may be necessary to change the paradigm of response.

Retention

AVFD has a committee that it is focused on retaining its members. As part of this effort, the AVFD has increased its reimbursement for responding to calls and attending training. They are also increasing the benefit of the Length of Service Awards Program. The retention efforts should be focused on the volunteers that are providing the biggest value to AVFD by responding to significant numbers of calls and having the credentials necessary to enter burning buildings.

According to the survey of members, the most important factors in retention revolve not around tangible incentives but rather "a feeling of belonging or inclusion", "Strong leadership", "respect" and "good communication." These factors are supported by research on volunteerism in a wide variety of environments. This suggests that while incentives may have some benefits, the most important factors for retention are related to organization culture. AVFD's retention efforts should ensure that they foster excellent leadership development, strong communication, and inclusion in decision-making among its members.

Anecdotally, one of the challenges facing younger members of the department is the cost of housing in Avon, particularly purchasing a home. Only 18% of the respondents to the survey report being younger than 40. This supports the belief that there are fewer younger adults in AVFD than other age groups. A possible aid to retaining this age group is specific incentives to support the purchase of a house in Avon or incentives for existing homeowners to join AVFD. The Town has already adopted property tax relief in an effort to address this concern.

Recruiting

Volunteer fire departments across the country are struggling to recruit new firefighters. AVFD has had between three and seven new volunteers join each year over the last five years. The department can build on this track record of success. Methods that have been seen as successful in recruiting firefighters include the following:

- Develop a single point of contact for interested people. AVFD does advertise a single email on its website for potential members and reports that they are

⁴ Four firefighters is based on OSHA's 2 in, 2 out rule for entering a potentially life threatening situation (29 CFR 1910) and fifteen firefighters is based on NFPA standard 1720 on response by volunteer fire departments.

successful in converting interest into members joining. This practice should continue.

- Develop a mentorship program for new members. New members should have an assigned mentor that will assist them in navigating the required initial training both in the department and at the regional level. One of the specific goals of the mentor program is to help the new member establish the essential relationships in the department.
- AVFD should develop a process for conducting “exit interviews” for volunteers that choose to stop being active with the department. This may help in identifying recurring challenges for volunteers that might be able to be addressed through requirements or work practices.
- Invest in the recruiting of teenagers and young adults through the Explorer Program. AVFD has an active, although relatively small, Explorer program. About a third of current volunteers had their first experience in the fire service through the Explorers. Although attracting this age group (14 to 21) is often difficult, it can reward the department with a long-term member. In addition to teens encouraging their peers to join, the AVFD should consider any opportunities that will get it invited into the Avon High School in a situation that can serve to recruit volunteers. This includes career days and demonstrations. Special incentives for this age group, including college scholarships, should be considered as well.

Training

There is a difficult balance in the volunteer fire service between having enough training in the right topics and overburdening the essential volunteer workforce. AVFD has regular training at both the company and department level on a broad range of topics. While this report did review the subjects in the training program, we did not go into great detail in lesson plans or instructor credentials. Therefore, our recommendations on lesson plans and instructors are general in nature and acknowledge that AVFD may already be following this practice. It is essential that lesson plans consider objectives that lead to competencies and skills identified by the NFPA and Pro Board. The lessons should be given, when possible, by an instructor who is trained and certified by Connecticut. AVFD supports this latter goal by requiring that new lieutenants become certified at the Instructor I level within the first year of holding office.

Other suggestions for improvement include:

- Utilization of appropriate on-line training courses, especially for courses like bloodborne pathogens training and hazardous materials refresher training.

- A complete library of training manuals should be available to the department for the membership. The library and manuals may include: NFPA “Fire Protection Handbook”, “The Fire Chief’s Handbook” published by Fire Engineering, “Managing Fire and Rescue Services” published by ICMA, Training manuals published by IFSTA or equivalent, and the following NFPA Standards, 472, 1001, 1002, 1021, 1201, 1401, 1403, 1410, 1451, and 1620.

Station Assistants

In 2021, the Fire Chief proposed hiring two full-time employees to serve as Station Assistants. Their roles would be to support the department by conducting some of the repetitive tasks handled by volunteers today. For example, they would be responsible for conducting regular apparatus checks, restocking equipment, helping with vehicle maintenance tasks and responding to calls that occur during their shifts. The goal would be to lighten the burden on the volunteers by performing some of the routine and repetitive tasks. While their primary job would not be to respond to calls, they would be available to supplement the volunteers during their shifts. The employees would be hired by the Town at a cost of about \$52,000 for salary, each. The total cost, with benefits, would likely be about \$ 150,000 annually for the two positions. This cost could be lowered if the positions were filled using part time staff.

Career Staffing

AVFD is currently able to meet the needs of the town with its volunteer response. However, it is reasonable to consider a future where career staff are necessary to support the volunteers. Adding career firefighters should be considered if AVFD is no longer able to adequately respond to calls for service. This could be defined as failing to get four qualified firefighters to any alarm in a timely manner or not being able to get 15 qualified firefighters to structure fire in under 10 minutes. The first is a bare-minimum response to ensure public and firefighter safety if a fire is found at a call. The latter has been shown through research to be the necessary manpower needed to control a fire in a timely manner.

Adding career staffing will shift AVFD from a fully volunteer department to a combination department. This shift has the potential to lead to substantial cultural changes in the department. When this change is implemented, it will be essential for Town and AVFD leaders to work with both the new career firefighters and the existing volunteers to establish expectations leading to a culture of mutual respect. This change can often lead to a decline in the amount of volunteer effort, which will substantially decrease the volunteer ranks if the change is not well led.

Daytime Option

Daytimes are often a challenging time for mustering enough volunteers in Avon. More than half of the volunteers work outside of Avon. Only about half of interior firefighters indicated that they were likely or very likely to be able to respond on weekdays between 6 am and 6 pm. A model to consider for daytime firefighters is that of neighboring Farmington, which has a staff of nine firefighters who work staggered shifts during the day. Avon would not need as many, because AVFD does not respond to medical emergencies. If AVFD put four firefighters on duty, split between two stations, likely Stations 1 and 3, they could ensure that a minimum staff would be available to respond during the busiest hours of the day. With an estimated pay of \$70,000 per year and benefits equal to three quarters of the salary, the cost of a single firefighter would be \$122,500. A staff of four would cost an estimated \$490,000.

Daytime Staffing Model	
Estimated Firefighter Salary	\$ 70,000
Benefits	\$ 52,500
Estimated per-firefighter cost	\$ 122,500
Cost for staff of four	\$ 490,000

Twenty-Four-Hour Option

A twenty-four-hour staffing option for the Town of Avon would be substantially more expensive. For each position staffed, the Town would need to hire 4.5 full-time employees. Therefore, to staff four firefighters on duty at one time, the Town would need to consider hiring 18 employees. In addition to the base salary, there would likely be the need for a career officer on each shift to provide the necessary supervision. Using the same assumptions for salary, a full-time department with four firefighters on a shift would have payroll and benefit costs of \$2.2 million.

Twenty-Four Hour Staffing Model	
Estimated Firefighter Salary	\$ 70,000
Benefits	\$ 52,500
Estimated per-firefighter cost	\$ 122,500
Cost for staff of eighteen full-time employees	\$ 2,205,000

Operations

Fire Department operations are typically considered tactics and under the direction of the fire chief rather than part of a strategic plan. However, several operational items came up to light that should be considered for implementation as part of a longer term strategic shift.

Duty Shifts

The current operational practice is for all firefighters to be alerted by pager and text when a call comes in. They make a choice at the time of the call to respond. This ad hoc response has been in use for generations. The responding firefighters then get credit for the call for service awards and also reimbursed based on that response. It creates a situation where command staff do not always know who will be responding to calls or if there will be an adequate response. If AVFD created duty shifts, it could alleviate the problem of not knowing who was responding and also help ensure that there was an adequate response.

One model would be to establish crews for certain equipment to be on duty for a defined period of time. For example, a crew of four would sign up to staff Engine 11 at Station 4 from 4 pm to midnight on Monday and Thursday evening, a different crew would staff Engine 14 at Station 3 on Tuesday and Friday evening and a third crew would staff Engine 7 at Station 1 on Wednesday and Saturday. The on-duty crew would be at their station and handle the initial response for the 37% of all calls that occur during that time frame. This would support a more rapid response and most events can be handled by a single engine response allowing other members of the department to not leave their activities.

The model could be expanded to include an overnight staffing with firefighters sleeping at a station once appropriate facilities are developed. The overnight response could serve to help address the relatively slow responses that occur during the early morning hours. The point systems could be used to incentivize participation in this model. Those who are not on duty would only need to monitor to see if arriving units or dispatch information indicated the need for additional resources.

Continue to Release Town Employees to Respond to Calls

The Town has several employees in the Public Works Department that are members of the AVFD. It is a benefit to Avon as a whole when those members are allowed to respond as members of AVFD to emergencies during working hours, particularly for events that might require multiple apparatus to respond such as house fires or chemical spills. They should be supported in this activity, but may not need to respond for routine calls such as alarm activations or most motor vehicle crashes.

Establish Automatic Aid Agreements for Certain Calls

AVFD should establish automatic aid agreements whereby neighboring departments are requested at the time of dispatch for certain calls. AVFD should request assistance from neighbors on reported structure fires and other events that have a high risk. AVFD already participates in mutual aid agreements that are used on an as needed basis. The automatic assistance should also be considered for calls in certain areas of

town such as near Secret Lake or on the ridge in the eastern part of the Avon. Automatic Aid in those areas will help the department perform well practically and when evaluated by the ISO.

Non-Emergency Responses

AFD responds to nearly all of its calls for service with lights and sirens. The International Association of Fire Chiefs⁵, among others, recommends that emergency response be limited to only situations that are perceived to be life or property threatening based on the information the time of dispatch.

These include:

- Smoke or fire in a building
- Outside fire with exposures
- Gas leak inside a building
- Hazardous materials release with persons in distress
- Critical medical incident

In contrast, these common fire incidents should not be considered emergencies and should have a response with a normal flow of traffic in order to reduce the risk of injury to firefighters and the public.

- Automatic fire alarm system activation – no human report of smoke or fire
- Residential smoke alarm sounding – no indication of smoke or fire
- Carbon monoxide alarm – no indication of person(s) in distress
- Outside fire without exposures
- Smoke in the area – no indication of source
- Outside gas leak
- Electrical wires arcing
- Hazardous materials release – no indication of person(s) in distress
- Water leak
- Unknown odor – no symptoms or persons in distress
- Relieve units at the scene of an incident that is under control

⁵ https://www.iafc.org/docs/default-source/1safehealthshs/vehclsafety_iafcpolandproceeds.pdf?sfvrsn=b5e5da0d_2

An essential aspect of the use of a non-emergency response is a dispatcher gathering information through a structured interview process.

Choosing Among the Opportunities

The Town of Avon and Avon Volunteer Fire Department are faced with difficult decisions to choose among the opportunities that are laid out in this report. The decisions among apparatus and buildings will have implications for at least the next decade and longer in the likely event there is a decision to bond for the work related to the buildings. The Town provides the funding for AVFD and needs to balance the fire services needs with all the other services needed in the community. The expenses suggested in this plan are between \$10.5 million and \$12.6 million for capital building needs and about \$20 million for apparatus that will need to be spread over the next twenty years. The costs for the capital building needs are based on current estimates and will likely increase if they are not addressed soon. The cost estimates for the apparatus include a 5% annual inflation over the planning period, which although reasonable by historical measures seems low in 2022.

The master plan also contemplates that the Town may soon be faced with annual staffing expenses for a fire department. These expenses range on the low end of \$150,000 annually for station assistants to over \$2.2 million for a staff of 18 full-time employees to assure an adequate 24-hour response. These staffing expenses illustrate the value of the dedicated volunteers of AVFD and the multiplier effect they provide from the funding they receive to operate the existing volunteer organization.

Fire Service Profile

Avon Volunteer Fire Department, Inc., is an independent 501©(4) that was created in 1943 to provide volunteer firefighting services to the Town of Avon. AVFD is governed by an eleven-member board of directors that manages the administrative affairs of the organization, elects members and selects the operational officers that lead the firefighting activities. The Department operates independently of the town, providing its own management, training, budgeting and finances. In January 2022, the AVFD recognized 102 members of the corporation.

Town Role

The Town does provide extensive support to the Department. The Town provides the bulk of the funding (more than 95%, in most years), owns three of the four fire stations (except for Station 2), and all the frontline firefighting apparatus. The Town also makes available two town employees specifically for clerical services. The Town provides fleet maintenance services. They allow the Fire Marshal and his assistants to perform duties for the fire department during their workday. The Town also provides Worker's Compensation insurance and liability insurance for the benefit of the Fire Department and its members. The Town also funds a Length of Service Awards Program and a stipend program for volunteers. Additionally, the Town appoints a member of the AVFD Board of Directors and performs yearly audits of their finances.

Personnel

The Avon Volunteer Fire Department (AVFD) is a fully volunteer department with nearly sixty active volunteer firefighters, another seventy that actively serve in various support roles and almost fifty more that are Honorary or Lifetime members. The volunteers are each assigned to an operational company (Companies 1 through 4, the Fire Police and the Headquarters). Companies 1, 3 and 4 are assigned to work primarily out of their specific stations. Company 2 members have been reassigned because of low numbers and the limited functionality of that station. The Fire Police primarily work out of Station 3. The Headquarters Company includes members who are not active firefighters, but they provide an important supportive role to the department. There is also an active Explorer's Post for youth ages 14 to 21.

Category	Number
Firefighters	58
Fire Police	9
Administrative Members	18
Explorers	18
Active Veterans	11

Category	Number
Senior Veterans	22
Lifetime Members	32
Honorary Members	14

Activities by Type

The department conducts extensive record-keeping of activities. One hundred and eighty-four individuals' activity records were shared in an extraction from the department's database.

In total, for the four years from 2018 through 2021, members collectively reported about 22,500 individual instances of responding to calls for service (a sum greater than the total number of calls because multiple members each report their own response to the same incident). There were 2,476 calls during the four years, which gives an average of 9 people per call. Individual response counts ranged from a minimum of zero (no responses to calls over the four years) to a maximum of 933 responses reported by one individual – about 37% of all calls over the four years. Collectively, about 42,600 person-hours were spent responding to calls during these four years. This represents approximately a third (32%) of total hours reported for all activities during the four years.

Members collectively report about 8,300 instances of training over the four years, accounting for 13,400 hours, approximately 10% of total activity hours over four years.

Other activities that are neither responses to calls for service, nor training/drills, account for the balance (58%) of hours over four years, representing approximately 34,800 recorded activities, accounting for about 77,300 person-hours.

In total across all three categories, approximately 133,400 person-hours were spent on duties and activities over the four years.

2018-2021 Total Activities for All Members	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
For whole department						
Total	22,481	42,625.2	8,302	13,406.7	34,754.0	77,349.1
Min	0	0	0	0	0	0
Max	933	3,081.43	243	481.5	3,431	6,082.38
Average	122.2	231.7	45.1	72.9	188.9	420.4

Call Responses

Call response is not evenly distributed among the members of the department. In the four years evaluated, there were 2,476 calls for service. A core group of 14 members responded to more than 20% of calls during the four-year period, while 53 members (29%) responded to fewer than 2% of the department's calls. The table below indicates that a disproportionate share of responses are being handled by a relatively few members of the department.

Call Response over Four Years	# of Members	% of Members
Zero call response	62	34%
At least 1 call response	122	66%
1-49 call response	53	29%
50-99 call response	12	7%
100-199 call response	18	10%
200-299 call response	9	5%
300-399 call response	7	4%
400-499 call response	9	5%
500+ call response	14	8%
Total members	184	100%

Training

Members were analyzed by the hours of training they participated in each year and grouped into one of five scaling categories. Overall, the largest proportion of members, about 30%, complete from zero to 23 hours of training per year. Another quarter of members complete more than 96 hours of training per year. The remaining members (45% of the total) complete between 24 and 96 hours of training per year.

Number of Members in Hour-Range per Year	2018	2019	2020	2021	Total	Average # of members in range	% of total members in range
0 to 23 Hours	33	26	29	39	127	31.8	30%
24 to 47 Hours	11	19	25	12	67	16.8	16%
48 to 71 Hours	20	14	12	21	67	16.8	16%
72 to 96 Hours	21	11	11	12	55	13.8	13%
More than 96 Hours	23	41	28	16	108	27	25%
Total	108	111	105	100	424	106	100%

AVFD conducts training on a wide array of topics during a given year. Numerous subjects are addressed during the year to meet Federal, State and Local training requirements in addition to the training requirements set forth by the Avon fire department. Live fire, driver training, rescue familiarization, ladder operations, and strategy and tactics are just a few of the topics covered during the training programs.

Fire officers are required to obtain additional courses through the National Fire Academy, State Fire Academy, or by attending numerous training programs and seminars offered during the year.

Recruit members of the fire department are trained to NFPA Standard 1001 under the new firefighter training programs. The Firefighter 1 program consists of 152 hours of training, while Firefighter 2 consist of an additional 80-hour training program. All members who successfully complete the recruit training program must obtain Pro-Board certification in accordance with the AVFD requirements.

Training for the fire department is conducted every Monday night from 7:00 PM until 9:00 PM. On average, 30 firefighters attend the Monday night training programs. During these regular training programs, firefighters attend the neighboring training facility to conduct live-fire training evolutions. Also, during this time, specific subjects are delivered and taught to the members in attendance. Many of these courses include hands-on training and practical evolutions taught in the fire station or out in the community.

The Avon fire department has a well-rounded and robust training program for the entire membership within the department. The Lieutenants in the department must achieve their Fire Instructor 1 certification within the first year of holding office. This certification provides well-rounded and trained instructors.

The Town of Avon jointly owns a fire training facility located in the Town of Farmington. The facility is are available for both departments. The training facilities and props have led to an improved firefighter training program. In addition, there is company training at fire stations, classes for officers, driver and operator training, new driver and operator training, hazardous materials training, and recruit training available at a regional fire academy.

Using the departmental records management system, we are able to get an overview of the training that has been taken by the members in the last four years. The table below shows the number of student sessions by topic and the total number of hours spent on the topic by students. The categories are summary categories developed by CGR for the more than 200 training session titles that were recorded. Some trainings were small group sessions, such as driving training, while others, such as annual safety update sessions, included nearly all members of the department.

Summary Category	Number of Student Sessions	Hours of Instruction
Fire Suppression	1,865	4,667
General Topics	1,436	3,236

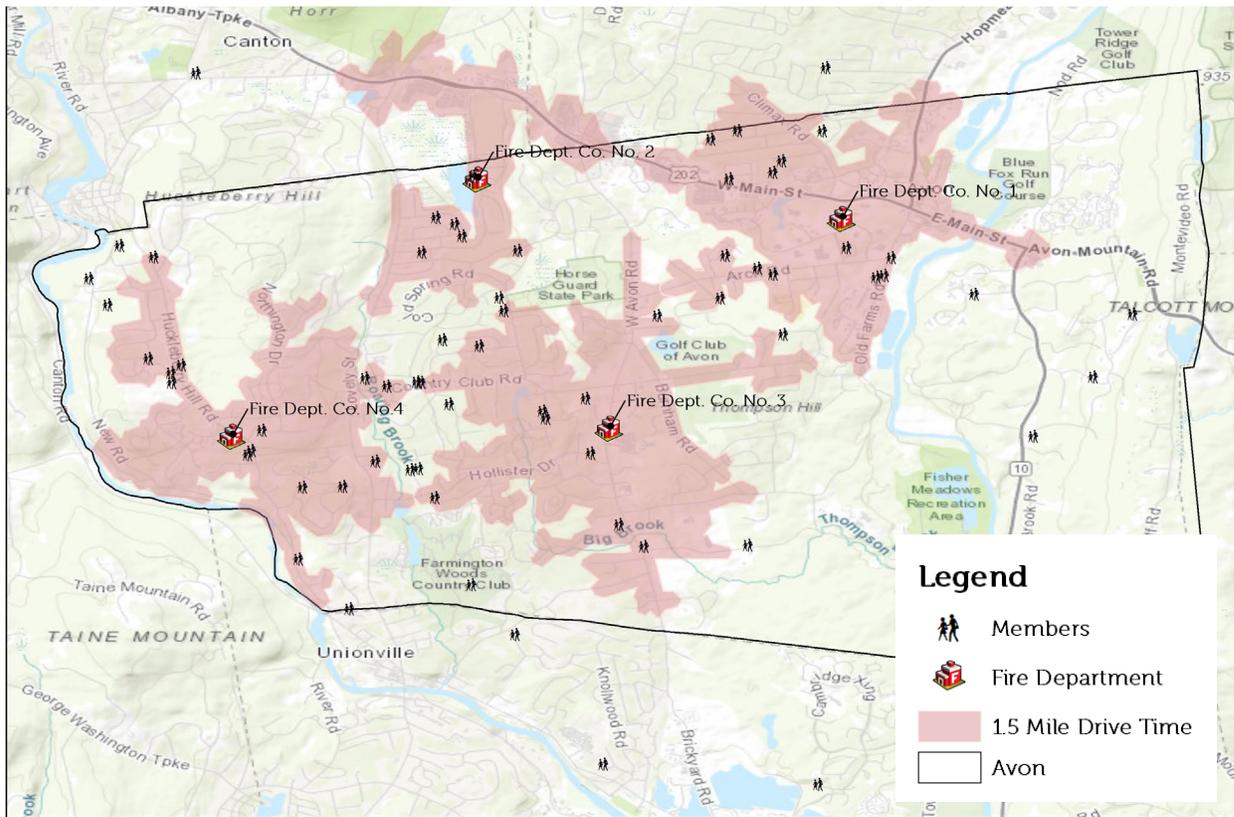
Summary Category	Number of Student Sessions	Hours of Instruction
Search and Rescue	1,436	3,241
Pump/Water	1,050	2,517
Driver Training	1,003	2,002
SCBA	602	1,349
Planning/Scene Mgt	578	1,666
Fire Police	577	1,187
Vehicle	568	1,221
First Aid/CPR/EMS	518	1,598
Fireground Operations	405	843
Ladders	402	908
Rehab	254	558
Aerials	245	533
HazMat	189	463
Communications	188	415
Annual Update	184	406
Physical Performance Qualifications	156	363
Water Rescue	153	340
Safety	147	334
Technical Rescues	115	237
Inspection	113	539
Leadership	76	597
Instructor	31	191

The members of the fire department feel that they have some of the best training programs, in comparison to neighboring departments. Members believe that the quality and quantity of training being delivered provides for a well-rounded firefighter responding to the community needs.

Member Distribution

In the AVFD, the members typically need to respond from their location in the community (home or work) to the nearest appropriate station before they can then respond to call. Members are typically assigned to the company that is closest to their home, although they can choose another company. The following map shows the distribution of reported residences for the active firefighters in AVFD. It also shows the locations of the four fire stations and a 1.5 mile driving distance from each. About a dozen members live outside the Town.

Map: Member's Residences in Relation to Stations



Apparatus

For fire response apparatus, there are four front-line fire engines, a mini-pumper/brush truck, a ladder truck, rescue truck and tanker. In addition, there are six pickup trucks and SUVs that are operated by the department in a variety of roles. The table below shows the vehicle type, typical station location, mileage and engine hours at the end of 2021, the number of responses assigned to each in 2021, key capabilities, age and the average number of miles per year.

Vehicle	Type	Station Location	Mileage	Engine Hours	Model Year	2021 Responses	Capabilities/Function	Age	Miles/year
Engine 7	Engine	1	13,208	1,133	2016	373	1,500 gpm pump, 1,000 gal. tank, E-draulic extrication tool	6	2,201
Engine 10	Engine	2	48,166	3,632	2000	287	1,250 gpm pump, 750 gal. tank, 25 gal. A-foam, 1500ft 5" hose,	22	2,189

Vehicle	Type	Station Location	Mileage	Engine Hours	Model Year	2021 Responses	Capabilities/Function	Age	Miles/year
							cutter & spreader tools		
Engine 11	Engine	4	20,407	1,548	2016	289	1,000 gpm pump, 500 gal. tank, spare engine, 1,500ft" 5" hose	6	3,401
Engine 13	Engine	2	5,515	501	2018	76	F350 Chassis "Mini" Pumper, 1500 gpm pump, 300 gal tank,	4	1,379
Engine 14	Engine	3	53,420	2,816	2001	379	1,500 gpm pump, 1,000 gal. tank, Hurst Combi tool	21	2,544
Tanker 20	Tanker	3	19,276	n/a	1997	27	1,250 gpm pump, 3,500 gal. tank, 25 gal. A-foam, 50 gal. B-foam	25	771
Rescue 8	Rescue	1	3,508	246	2020	237	Extrication tools, water & rope rescue, SCBAs, mobile command post	2	1,754
Ladder 12	Ladder	3	36,783	3,961	2001	344	103ft. rear mount ladder, air cascade system	21	1,752
Truck 15	Support	1	11,438	n/a	2002	0	Utility truck w/ rehab equipment. Primary tow vehicle for trailers. Least utilized due to limited (2-door) cab size.	20	572
Truck 16	Support	3	4,006	386	2019	50	Fire police traffic control equipment	3	1,335
Truck 17	Support	1	32,975	1,410	2015		Used for trainings	7	4,711
Truck 18	Support	3	95,408	1,615	2005	16	Utility/support and towing	17	5,612
Truck 19	Support	1	9,300	917	2018	212	Fire police traffic control equipment; rehab equipment	4	2,325
Tahoe	Support	1	37,653	n/a	2016		Duty officer vehicle. Location at firehouse, rather than issued to chiefs, means it is underutilized when duty officers directly respond to incidents w/o stopping to pick it up.	6	6,276

Based on recommendations from the NFPA on service life, Engines 9, 10 and 14 are past their expected service life of 15 years for a front-line engine. Ladder 12 would expect to be replaced at 20 years and it has some substantial maintenance issues that are leading to its planned replacement in 2023. An engine is also anticipated to be replaced at that time. However, that would still leave two engines that would lack the modern safety features that have been added to fire apparatus in accordance with the most recent editions of the NFPA standard on fire apparatus.

The workload of the apparatus varies substantially. The records management system tracks which apparatus are assigned to an event and which ones arrive on scene. The table below shows the number of assignments and how many times they arrived on scene over the last four full years. Engine 7 has been assigned to the greatest number of calls in 3 of the 4 years. Engine 14 edged it out in 2021. Ladder 12 has had over 320 assignments a year, but only arrives on scene for less than a third of its assignments. After the new Rescue 8 was placed in service in late 2020, the number of assignments nearly doubled during 2021 from an average of 125 in the previous years to 237 in 2021. Tanker 20 had the lowest number of assignments and on scene recorded in the front-line fleet.

	2018 (631 Calls)		2019 (635 Calls)		2020 (618 Calls)		2021 (592 Calls)	
	Assigned	On Scene						
E7	448	206	388	148	443	234	373	150
E9	78	46	107	62	62	37	61	39
E10	388	67	295	31	282	20	287	36
E11	264	122	318	138	296	120	289	122
E13 (Mini)	0	0	48	28	35	20	76	40
E14	381	131	382	155	375	163	379	173
R8	127	27	121	35	123	37	237	153
T20	77	8	25	8	42	19	27	11
L12	356	92	323	84	351	106	344	63
TK16	58	39	51	22	220	122	120	50
TK18	7	3	32	16	35	15	33	16
TK19	0	0	126	46	132	67	294	212
TK6	96	56	0		0		0	
Total Responses/Calls in Year	2,280		2,216		2,396		2,520	

Equipment

Current inventories of tools and appliances in service and carried on the apparatus are consistent with today's modern firefighting standards. The department has state-of-the-art equipment that is utilized for extrication and special operations at the scene of incidents. Proper budgeting and planning should still be considered when it comes to

new technology being introduced into the fire service. AVFD continues to follow this trend when new tools and appliances are introduced. As an example, the department recently switched all its attack hose to 1 ¾-inch diameter from 2-inch to address recent concerns with tactics.

AVFD also was able to replace its entire inventory of SCBAs in 2019. They purchased 57 SCBA packs, 200 bottles and 100 masks. This was significantly supported from a FEMA Assistance to Firefighters Grant in the amount of \$300,000.

AVFD does a fairly good job when it comes to the proper maintenance of tools, hoses and appliances. Preventive maintenance programs should continue to be conducted on a regular basis when it comes to breathing apparatus, ground ladders. Regular maintenance programs should continue to be conducted on an annual, monthly, weekly, or daily basis based upon the type of equipment being utilized by the fire department. Currently, these tasks are volunteer responsibilities and it has been noted that this work is often seen as a burden.

In addition to regular inspections, the department documents that it conducts tests for the following items on an annual basis: fire pumps, aerial ladders, fire hose (both supply and attack), breathing apparatus, and ground ladders.

Stations Overview

As part of the project, LaBella, an architectural and engineering firm with substantial experience in fire station design, build and renovation, conducted a site visit and review of the department's facilities. The full report with details on the identified deficiencies follows in Appendix C. A summary of the information about the stations follows.

Station One

Station One is located at 25 Darling Drive on the east side of Avon and serves as the primary headquarters of the Avon Volunteer Fire Department. The station was built in 1979. It is owned by the Town. It is built into the side of a hill. Its apparatus bays open directly onto Darling Drive. There is a parking lot that is located up the hill and is at grade level with the second floor. There are three apparatus bays that are two apparatus deep on the ground floor. The second floor has administrative offices and meeting spaces. The following apparatus are typically kept at Station 1: Engine 7, Marine 1, Rescue 8, Truck 15, Truck 19, Light Tower, Truck 19, Truck 17, HazMat Trailer, and an ARGO Vehicle

The bays in Station One are minimum-width but will function if materials stored in them are removed. This will require additional storage elsewhere. In general, the building needs maintenance and reorganization.



The entrance /exit drive should be aligned with Security Drive to minimize the potential for an accident.

Station One can serve the people of the Town of Avon well into the future once it is maintained and the needed renovations

/ additions are provided to remediate the deficiencies.

Station Two

Station Two is located at 106 Secret Lake Road and is the oldest station in the Avon Volunteer Fire Department. Until 1943, when it was incorporated into the AVFD, the station serviced only the Canton/Avon residents of the Secret Lake Association. Company 2's firehouse is the only one which is privately owned by the Avon Volunteer Fire Department Corporation. Today, Company Two is an Engine/Rescue company, which houses Engine 9 and Engine 13.



Station Two structure and site are not pragmatically able to function as a fire department given the limitations. Apparatus must be moved in order access rooms in the building, which slows response time given one of these rooms is the Gear room. The building has been maintained well and needs a minor amount of work to protect it from the elements.

Station No. 2 is not feasible to be maintained as a safe functional station. Consideration for repurposing or selling this station should be explored. It is currently used as a reserve station.

Station Three

In 1960, the Avon Volunteer Fire Department merged with the then independent West Avon Volunteer Fire Department and the Secret Lake Volunteer Fire Department. Four years later, the AVFD built Station Three, replacing the former West Avon Volunteer Fire Department one-bay station located across from the Avon High School main entrance.

Located at 490 West Avon Road, Station Three is one of the most active companies in the Avon Volunteer Fire Department as it is both centrally located in town and it houses Ladder 12, Tanker 20, Engine 14, Truck 16. This station was built in 1973.

Over the years, Station 3 has played a large role in many of the town's larger emergency incidents. This company and its specialized apparatus not only provide a valuable service to the Town of Avon, but are often called upon to provide mutual aid assistance to surrounding towns and are part of a specialized multi-town tanker task force.



The bays in Station Three are minimum-width but will function if materials stored in them are removed. This will require additional storage elsewhere. In general, the building needs maintenance and reorganization. The bay depths and height as well as the bay door widths are not accommodating the apparatus that is garaged here. It is difficult to move around the apparatus and utilize laundry areas, storage areas and access to gear is inefficient. The site access at times is congested due to the location and shared driveway with the school.

Station Three can continue to serve the people of the Town of Avon once it is maintained, and the needed renovations / additions are provided to remediate the deficiencies. However, the station has outlived its usefulness and despite additions and repairs, its location on the site, proximity to the road, bay widths, depths and heights will continue to limit the proper effective functionality of Station Three compared to a newer more adequately sized facility. A more cost-effective solution may be to relocate and construct a new Station Three across the road at the available site as noted under the options.

Station Four

Station Four is located at 365 Huckleberry Hill Road and operates primarily as an Engine/Rescue company with specialty equipment and training for brush fires and water rescue, Station 4 serves the South and West ends of the Town of Avon and is home to the Engine 11, Engine 9, and Marine 2.



This station was built in 1974.

The bays in Station Four are minimum-width but are functioning. The facility has undergone recent renovations that have improved its appearance and function.

Station Four can continue to effectively serve the people of the Town of Avon. There are items that need to be completed that are part of normal maintenance to any Station.

General Overview of Station Conditions:

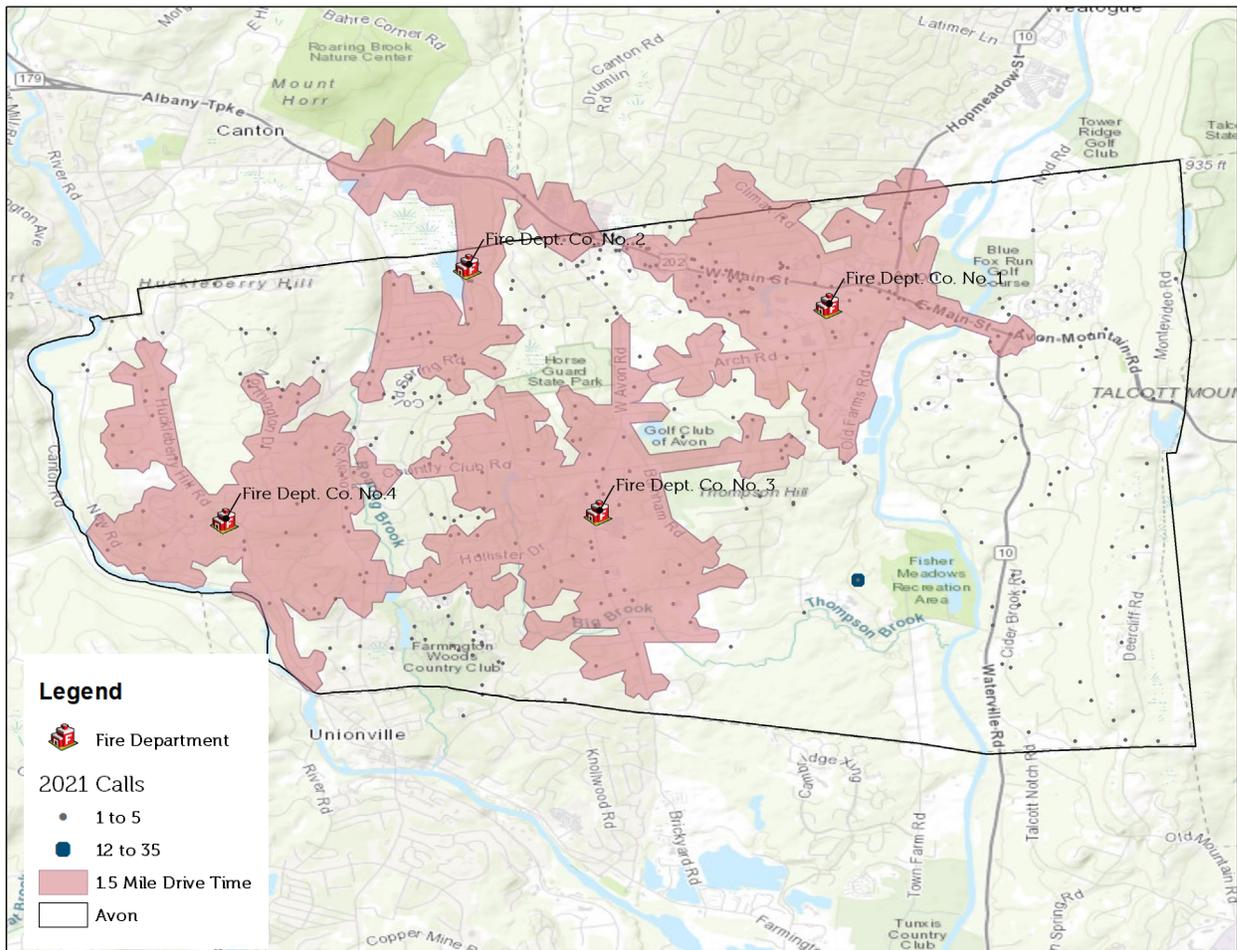
1. Fire Service today is managed and regulated like any other government or private institution. To meet the needs of the community within the mandates of the State and Federal Government, many contributors work together to provide efficient, safe, and economical fire protection and document retention. All of these contributors require secured access, control/dispatch room, meeting space, training space and future staff and records retention space to perform their responsibilities efficiently and legally. In general, the ever-expanding storage requirements of equipment, documents and people are not being met.
2. Since the construction of the Stations, management and business functions have expanded through government mandate. The Fire Department of 2022 does not fit and does not function safely and efficiently in dated and minimally designed structures.
3. Heating plants are an opportunity for improvement in efficiency.
4. Consider what can be done to minimize file storage through scanning and digital storage of these materials.
5. Consider what functions can be centralized to avoid redundancy of spaces and equipment such as SCBA, Training Spaces, Office Space, and social halls.

Coverage Map

The following map shows the area of the Town that is within a 1.5-mile drive of each of the four fire stations. A 1.5-mile distance is used by the Insurance Services Organization and the National Fire Protection Association as a guideline for helping to identify the ideal location of a fire station. For the calls in 2021 with valid addresses for mapping in the Town, about half (53%) are within 1.5-miles of a station. 25% of calls are closest to Station 1, while only 6% are within 1.5 miles of Station 2. The largest source of calls, the Old Farms School, with 28 calls (5% of the annual call volume), is outside of 1.5 miles of any station. There are also several developments along the eastern side of the Town that are outside 1.5 miles. There is very little overlap for any of the stations.

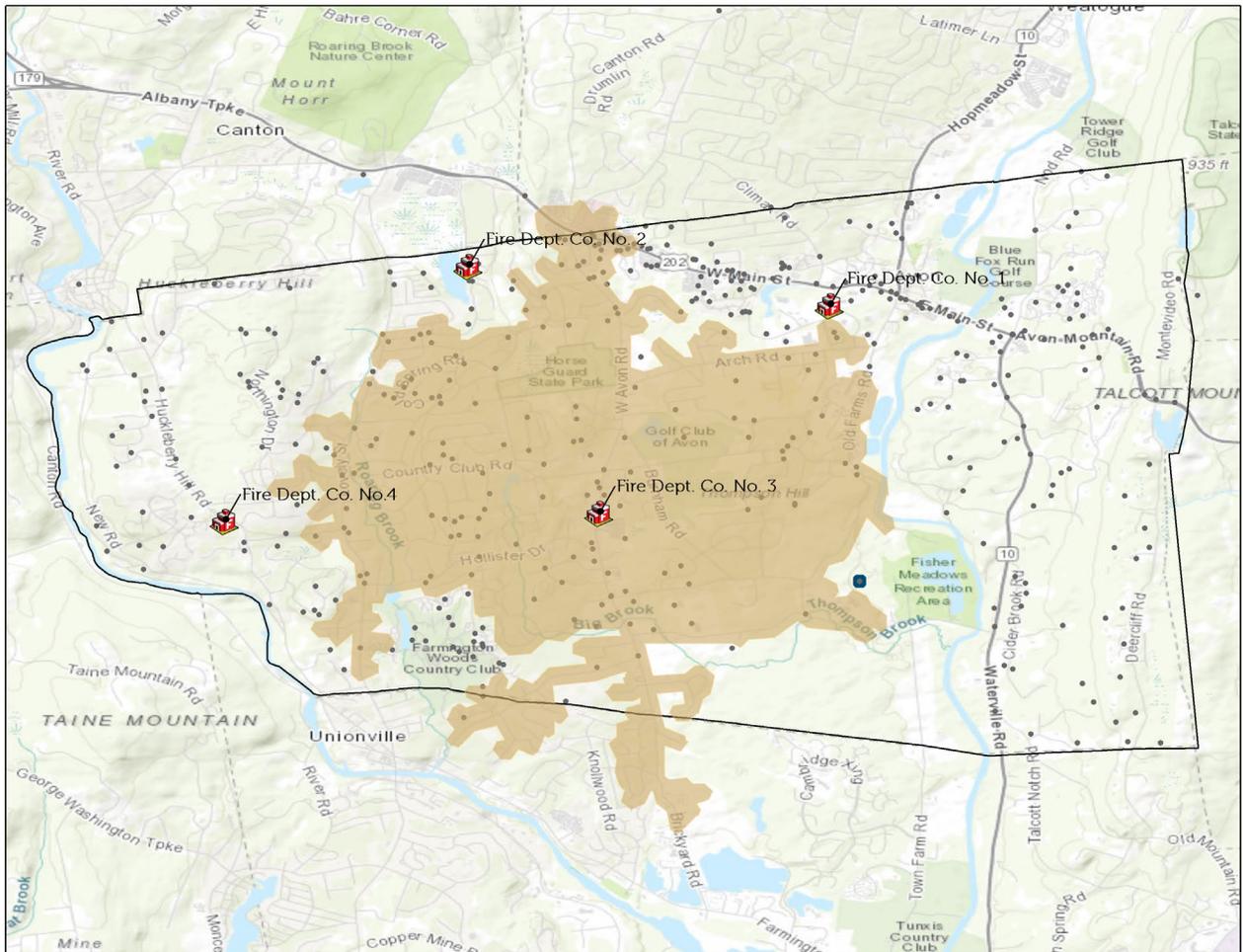
Calls Inside 1.5 Mile Drive Time		
	#	%
Station 1	146	25%
Station 2	36	6%
Station 3	79	13%
Station 4	55	9%
Inside 1.5 Mile Drive Area	316	53%
Outside 1.5 Mile Drive Area	276	47%

Map: 1.5 Mile Drive and 2021 Calls for Service



Another concern is the distance from the nearest aerial ladder truck. AFD stations their ladder in the center of Town at Station Three. The goal is for a location to be within 2.5 miles of a ladder truck. Two hundred and two calls, or about 35% of calls, were within that 2.5-mile drive distance of Station Three during 2021. The largest concentrations of calls outside that area are along Main Street, along the eastern quarter of Avon and at the Old Farms School.

Map: 2.5 Mile Drive from Station Three and 2021 Calls for Service



ISO Report

The Insurance Services Organization conducts a review of every organized fire department on a periodic basis to evaluate how the community is protected from the risk of fire. The ISO Public Protection Classification uses a series of objective criteria to aid insurance companies in determining risk. The evaluation looks at all aspects of fire protection, including dispatching, water supply and department operations.

AVFD was most recently evaluated in 2017. They received a rating of Class 4 for areas within 1,000 feet of a fire hydrant or alternate water supply (most of Avon) and Class 8B for the other areas. This split classification recognizes the difficulty in fighting a fire without an adequate water supply. The lower the score, the better the protection. In Connecticut, 12% of departments have a better score than Avon and about a third of departments have the same rating.

Category	Avon	Maximum Possible
Receiving and Handling Fire Alarms		
414. Credit for Telephone Service	1.8	2
422. Credit for Operators	1.5	3
432. Credit for Dispatch Circuits	2.5	5
440. Credit for Receiving and Handling Fire Alarms	5.8	10
Fire Department		
513. Credit for Engine Companies	6.18	10
523. Credit for Reserve Pumpers	0.62	1
532. Credit for Pumper Capacity	5	5
549. Credit for Ladder Service	4.31	5
553. Credit for Reserve Ladder and Service Trucks	0.33	1
561. Credit for Distribution	2.02	4
571. Credit for Company Personnel	3.5	15
580. Credit for Training	3.79	9
590. Credit for Fire Department	25.75	50
Water Supply		
616. Credit for Supply System	34.73	35
621. Credit for Hydrants	2	2
631. Credit for Inspection and Condition	2.3	3
640. Credit for Water Supply	39.03	40
Divergence	-9.21	
Total Credit	61.37	100

Areas of substantial variation from the maximum score are outlined below.

- Dispatch
 - **On-Duty Operators**
 - An additional dispatcher should always be on duty in order to accommodate the volume of calls received by the Avon public safety answering point (PSAP).
 - **Dispatch Circuits**
 - For maximum credit, the dispatch circuit should have an automatic system that will detect faults and failures and send visual and audible indications to appropriate personnel. These systems are subject to field verification and demonstration.
 - **Emergency Power Supply**
 - For maximum credit, emergency power supplies need to be provided and regularly tested (one hour weekly, under load, with test documentation).

-
- Fire Department
 - **Engine Companies**
 - The ISO report indicates that six engine companies are needed to be in service to adequately respond to emergencies in the town of Avon. Currently, there are only four engine companies in service in the town of Avon that have been credited by ISO. With a new Ladder/Quint coming into service, the department will be able to receive additional credit under this category in the ISO schedule. One additional engine company should be readily available to provide Fire Protection to the geographical areas in the town of Avon.
 - **Distribution and Fire Station Locations**
 - This item examines the number and adequacy of existing engine- and ladder-companies to cover built-upon areas of the city. The built-upon area of the city should have a fully equipped first-due engine company within 1½ miles and a fully equipped ladder-service company within 2½ miles. The department should consider several options for relocation of fire stations and additional fire station in the eastern portion of the town. This is outlined in the opportunities for action.
 - **Personnel**
 - Credit is determined by the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the community. Call and volunteer members (VM) are credited on the basis of the average number staffing apparatus on first alarms. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm. Call and volunteer firefighters and company officers assigned for on-duty shifts at fire stations on a pre-arranged schedule are considered as on duty for the proportional time that they are at the fire station.
 - During interviews with members of the department, it was suggested that members who belong to the fire department and work for the town highway department should be allowed to respond to emergency calls in the community. This would allow for increased credit under the staffing capabilities of the fire department
 - **Training facilities**
 - Credit should be applied for the utilization of the new training facility in the neighboring community. In addition, the facility should be utilized on a regular basis to receive maximum credit for the item.

- Water Supply
 - The municipal water supply system is very strong and able to meet the demands from both domestic consumption and fire protection needs. Fireflow requirements have been satisfied at nearly 98% of the locations in the community. Additional credit should be applied for utilizing the numerous suction-supply points in addition to the on-board water supply carried by the apparatus that responds on first alarms in the unhydranted areas of Avon.

AVFD would need to improve its score by about 9 points to achieve a better rating with the ISO. As noted above, improvements in dispatching, number of engine companies, distribution of assets, on-duty personnel and training of staff are areas of potential improvement.

Calls for Service

The information related to calls for service was provided by AVFD. The department uses a records management system that tracks around a hundred data points on each event, such as time of calls, type of calls, apparatus that responds, the number of people who respond, and actions taken. The following section provides an overview of some of the key performance measures for the department and characteristics of the calls. *Response time* is defined as the time interval between when the department was notified of the call and when the first-arriving unit reported being on scene. The *time on task* is the time from when the call was received to when the call was cleared. The *50th percentile* is the median, indicating that half the calls had a shorter interval and half the calls had a longer interval. The *90th percentile* indicates that 9 out of 10 calls had a time interval shorter than that.

There is no “standard” for a call-for-service goal and each department sets their own targets for performance. However, the NFPA 1720 on the Organization and Deployment of Fire Suppression Operations suggests a suburban volunteer fire department should have 10 trained and equipped firefighters on a scene within 10 minutes of the alarm, 80% of the time. Our analysis focused on the 90th percentile (90% of the time) and found that AVFD’s responses were at 15 minutes. To compare with the 80th percentile, we found that most response times were shorter by 2 to 3 minutes when compared to the 90th percentile.

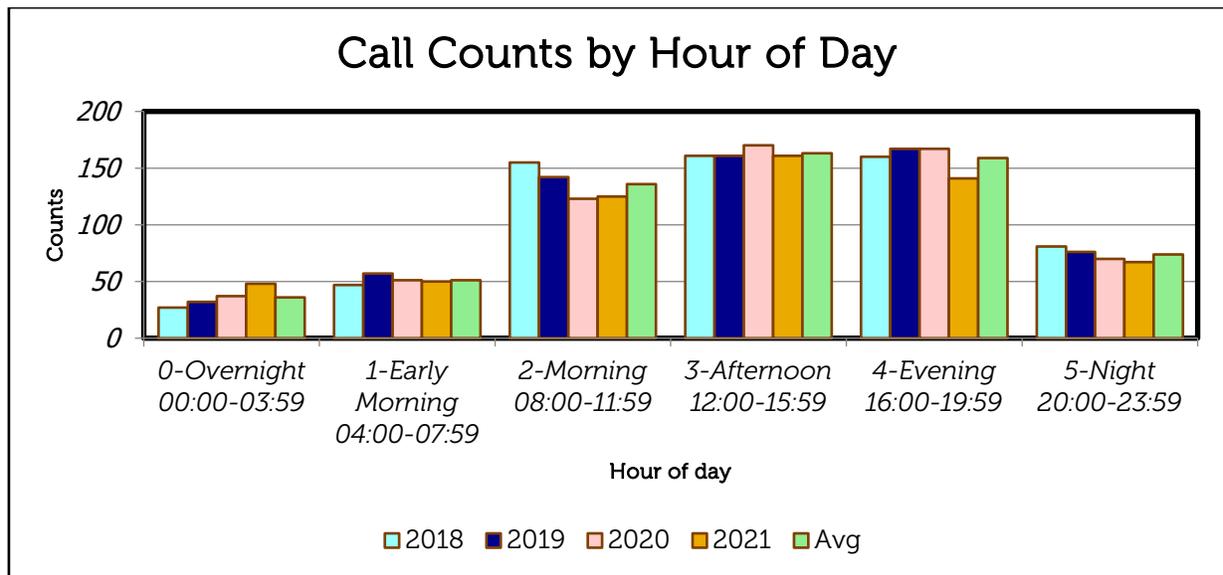
Calls for service by hour of day

Nearly three-quarters (74%) of calls occur during regular daytime/evening hours (8 am to 8 pm). Calls during the day/evening and night (8 pm to midnight) receive noticeably faster response time than those in overnight (midnight to 4 am) and early morning (4 am to 8 am) hours.

The 50th percentile of response times (meaning that 50% of all responses occur within this time or less) for overnight and early morning (between midnight and 8 am) calls is roughly double the time taken for daytime responses, averaging 10 minutes. Likewise, the 90th percentile response times (90% of all responses occur within this time or less) increases by about a quarter for overnight and early morning calls, to 19 and 17 minutes, respectively. For comparison to the NFPA 1720 guideline, the 80th percentile ranged from 12 minutes to 16 minutes – three minutes quicker for each time frame.

Task time indicates time from receiving the call until units are back in service. These times are relatively stable through most of the day and early night (around 15 minutes or less for 50% of calls and around an hour or less for 90% of calls) but also rise noticeably in the overnight (midnight to 4 am) block.

Calls for Service by Hour of Day	2018	2019	2020	2021	Avg	Response Time Percentile		Task Time Percentile		Avg Percent
						50th	90th	50th	90th	
0-Overnight 00:00-03:59	27	32	37	48	36	10m	19m	22m	73m	5.8%
1-Early Morning 04:00-07:59	47	57	51	50	51	7m	17m	16m	62m	8.2%
2-Morning 08:00-11:59	155	142	123	125	136	5m	15m	14m	59m	22.0%
3-Afternoon 12:00-15:59	161	161	170	161	163	5m	15m	14m	55m	26.3%
4-Evening 16:00-19:59	160	167	167	141	159	5m	15m	13m	61m	25.7%
5-Night 20:00-23:59	81	76	70	67	74	6m	15m	17m	66m	12.0%
Total	631	635	618	592	619					



Calls for service by day of week

Call volumes stay relative stable across weekdays, declining slightly on Saturdays and declining more on Sundays.

Calls for Service by Day of Week	2018	2019	2020	2021	Year Avg	Avg Percent
Sunday	61	71	79	64	69	11.2%
Monday	93	79	89	97	90	14.5%
Tuesday	103	88	99	104	98	15.8%
Wednesday	93	99	95	76	91	14.7%
Thursday	93	114	76	103	96	15.5%
Friday	98	92	100	79	92	14.9%
Saturday	90	92	80	69	83	13.4%
TOTAL	631	635	618	592	619	

Calls for service by month & season

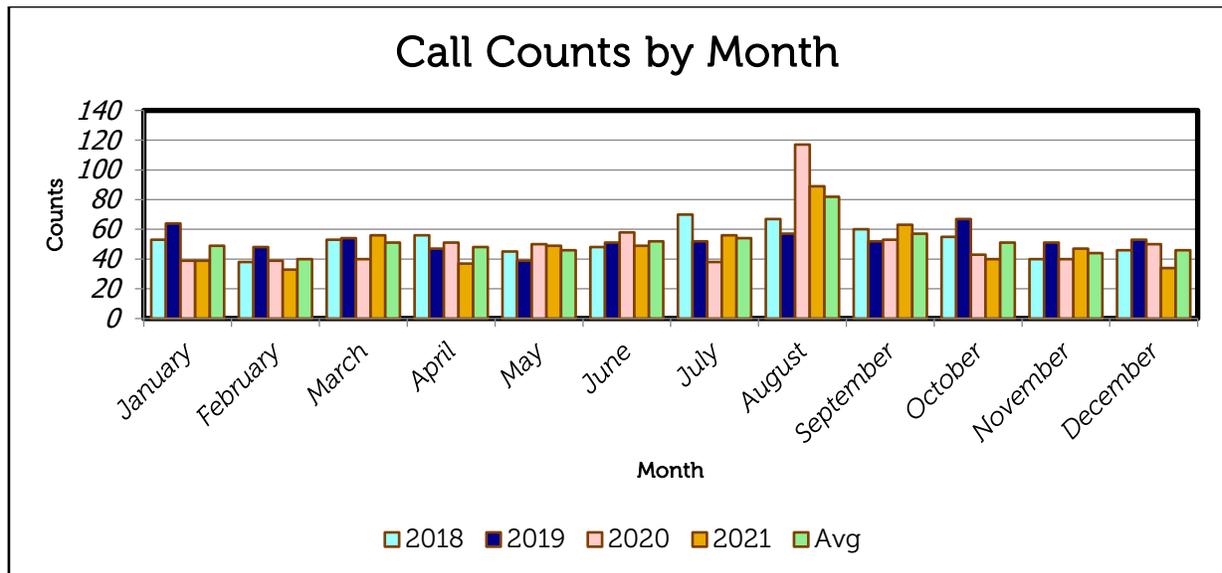
Calls for service generally stay in the range of 40-60 calls per month, with slightly fewer in the winter and more in the summer months. The notable exception is late summer—August and September—when calls spike above normal, significantly in August.

Call Counts by Season	2018	2019	2020	2021	Avg	Avg Percent
Spring	154	140	141	142	144	23%
Summer	185	160	213	194	188	30%
Fall	155	170	136	150	153	25%
Winter	137	165	128	106	134	22%
TOTAL	631	635	618	592	619	

Response times and task times do not differ significantly by month, with 90% of response times averaging about 15 minutes and 90% of task times averaging about an hour. The noticeable jump in calls in August 2020 was the result of nearly a month's worth of calls (39) occurring during a 36-hour period during Tropical Storm Isaias. As noted above, this leads to a higher call volume in August compared to other months.

Call Counts by Month	2018	2019	2020	2021	Avg	Avg Percent
January	53	64	39	39	49	7.9%
February	38	48	39	33	40	6.5%
March	53	54	40	56	51	8.2%
April	56	47	51	37	48	7.7%
May	45	39	50	49	46	7.4%
June	48	51	58	49	52	8.4%
July	70	52	38	56	54	8.7%
August	67	57	117	89	82	13.2%
September	60	52	53	63	57	9.2%

October	55	67	43	40	51	8.2%
November	40	51	40	47	44	7.1%
December	46	53	50	34	46	7.4%
TOTAL	631	635	618	592	620	



Calls for service by category type

Calls were classified into nine broad categories—from fire calls to false alarm call. As is typical, false alarms were the most frequent call type. This is followed by hazardous condition calls (100 in 2021). The department received about two-thirds as many EMS/Rescue calls as hazardous condition calls (65 in 2021) and a third as many fire calls (33 in 2021).

Response times are relatively consistent across call types, while task time unsurprisingly varies with the complexity of the task: of standard call types, fire calls take the longest amount of time (90% of calls are completed within 80+ minutes), while false alarms take the shortest amount of time (90% of calls are completed within 40+ minutes).

Call Counts by Type	2018	2019	2020	2021	Avg	Response Time Percentile		Task Time Percentile		Avg Percent
						50th	90th	50th	90th	
1-Fire	38	33	47	33	38	6m	15m	19m	83m	6.1%
2-Overpressure Rupture, Explosion, Overheat	6	1	7	4	4	6m	15m	21m	52m	0.7%
3-Rescue & Emergency Medical Service Incident	60	66	72	65	66	5m	14m	17m	74m	10.7%
4-Hazardous Condition	145	130	123	100	124	5m	16m	19m	80m	20.0%

5-Service Call	101	92	76	77	86	5m	18m	15m	61m	13.9%
6-Good Intent Call	48	73	44	58	56	5m	15m	13m	45m	9.1%
7-False Alarm & False Call	219	236	233	240	232	6m	16m	12m	42m	37.5%
8-Severe Weather & Natural Disaster	11	4	16	15	12	4m	17m	12m	48m	1.9%
9-Special/Other	3	0	0	0	1	3m	8m	10m	22m	0.2%
TOTAL	631	635	618	592	619					

Calls for service by incident type

The most frequent call types are smoke/fire alarm activations with no fire, accounting for about 17% of incident types. Power lines down (5%), smoke alarm malfunction (4%) and motor vehicle accident without injuries (4%), round out the top five, accounting for roughly 30% of all calls. Calls in the table below are ordered by four-year total for the incident type and include the top 30 incident types which account for 8 in 10 calls for service. The full grid is included as an appendix.

Calls for Service by Incident Type	2018	2019	2020	2021	4 Year Total	Avg	Response Time Percentile 50th	Response Time Percentile 90th	Avg Percent
Smoke detector activation, no fire – unintentional	54	62	50	57	223	56	6m	16m	9.2%
Alarm system activation, no fire - unintentional	37	38	63	52	190	48	5m	14m	7.9%
Power line down	26	29	41	17	113	28	4m	15m	4.6%
Smoke detector activation due to malfunction	33	28	11	27	99	25	7m	15m	4.1%
Motor vehicle accident with no injuries.	27	25	22	22	96	24	5m	13m	3.9%
Lock-out	24	25	21	20	90	22	6m	15m	3.6%
Motor vehicle accident with injurie	19	21	27	19	86	22	5m	13m	3.6%
Vehicle accident, general cleanup	38	23	14	14	89	22	5m	15m	3.6%
Carbon monoxide detector activation, no CO	18	20	13	23	74	18	9m	17m	3.0%
Gas leak (natural gas or LPG)	18	14	14	28	74	18	8m	15m	3.0%
Detector activation, no fire - unintentional	11	16	14	23	64	16	6m	16m	2.6%
Good intent call, other	8	26	16	15	65	16	5m	15m	2.6%

Calls for Service by Incident Type	2018	2019	2020	2021	4 Year Total	Avg	Response Time Percentile 50th	Response Time Percentile 90th	Avg Percent
Alarm system sounded due to malfunction	8	15	23	11	57	14	6m	19m	2.3%
Carbon monoxide incident	9	9	19	19	56	14	10m	19m	2.3%
CO detector activation due to malfunction	11	9	22	15	57	14	9m	18m	2.3%
Smoke scare, odor of smoke	12	21	13	10	56	14	6m	14m	2.3%
HazMat release investigation w/no HazMat	14	15	8	14	51	13	7m	17m	2.1%
False alarm or false call, other	11	12	17	8	48	12	5m	15m	2.0%
System malfunction, other	11	18	5	4	38	10	5m	14m	1.6%
Cover assignment, standby, moveup	7	14	7	9	37	9	6m	27m	1.5%
Unintentional transmission of alarm, other	15	11	5	6	37	9	4m	14m	1.5%
Accident, potential accident, other	16	15	2	1	34	8	4m	13m	1.3%
Arcing, shorted electrical equipment	6	8	11	6	31	8	6m	16m	1.3%
Brush or brush-and-grass mixture fire	1	9	13	11	34	8	4m	14m	1.3%
Smoke or odor removal	11	4	8	8	31	8	7m	15m	1.3%
Service Call, other	10	7	9	3	29	7	1m	14m	1.2%
Unauthorized burning	5	4	12	6	27	7	4m	13m	1.2%
Cooking fire, confined to container	8	5	8	4	25	6	5m	13m	1.0%
Hazardous condition, other	8	9	4	1	22	6	4m	13m	1.0%
Medical assist, assist EMS crew	2	3	8	9	22	6	9m	17m	1.0%
Remaining Call Types	153	120	118	130	521				
TOTAL/AVERAGE	631	635	618	592	2,476	608	Avg 6.7	Avg 13.4	100%

Number of Members Responding

Nearly two-thirds of calls (64%) are responded to by between 5 and 14 members. Response times tend to decrease, and task times increase, as more members respond. This presumably reflects the urgency and complexity of calls that require a larger number of members to be activated.

Number of Members Responding to a Call	2018	2019	2020	2021	Percent of Responses
1 to 4	81	39	47	68	10%
5 to 9	205	156	123	184	27%
10 to 14	229	262	217	196	37%
15 to 19	92	132	130	104	18%
20 to 24	15	30	70	29	6%
25 to 29	9	11	27	7	2%
Over 30	0	5	4	4	0.5%
TOTAL	631	635	618	592	

Communications

For AVFD, the Avon Police Department (APD) is the primary public safety answering point and dispatcher. APD is a single town dispatching center. They have the capability of having two dispatchers on duty, but typically there is only one, a civilian employee of the police department. That person is responsible for answering the calls for aid, gathering the information and dispatching the police and fire units. For calls that are medical emergencies, the caller is transferred to American Medical Response after essential information is gathered. The call center receives about 15 to 20 calls per day through 911 and also numerous other calls through administrative phone lines. 79% of calls are received from a wireless caller, which is typical of the current 911 system. About 93% of 911 callers have their call answered within 10 seconds of dialing 911.

	Wireline	VOIP	Wireless	Text	Total	Calls Per Day
January	36	67	309	1	413	13.3
February	38	55	314	0	407	14.5
March	28	93	380	1	502	16.2
April	39	68	394		501	16.7
May	36	69	514	1	620	20.0
June	45	96	508	4	653	21.8
July	17	38	248	2	305	9.8
August	57	107	588	1	753	24.3
September	45	82	511	0	638	21.3
October	40	73	462		575	18.5
November	33	71	455	2	561	18.7
December	28	94	490	2	614	19.8
Total	442	913	5173	14	6542	17.9
Percentages	7%	14%	79%	0.21%		

The APD maintains the primary radio receivers and transmitters used by AVFD. AVFD is responsible for purchasing and maintaining the portable radios and mobile units in their vehicles. The current primary transmitter and receiver set up creates pockets of poor reception in the Town. However, the Town is building a new radio transmit and receiver antenna that is 30 feet higher (130 feet vs. 100 feet) that should substantially improve both sending and receiving of messages.

The APD dispatchers enters the initial information related to fire calls and track the times associated with the events in their records management system which then auto-populates into the RMS used by the fire department. In general, this system works well for the fire department and leads to consistent data entry. Although, during busy time periods or large events, there can be some reported overload in the dispatch office leading to decreased performance as perceived by the AVFD.

Finances

The overall budget to operate the AVFD is \$791,680. This represents about 2.8% of the Town's total government operating budget. The department has had incremental increases from year to year in the last few years. These increases have been inline with those given to other departments in the town and occasionally were higher.

The difference between the FY 2022 approved budget and FY 2023 requested budget is nearly insignificant at \$1,832, approximately 0.2% of the overall budget amount. However, a number of changes have been made within budget categories by shifting budgeted amounts between lines. Of the largest changes, \$20,000 for new firefighter PPE has been shifted from the rescue tools budget, while increases for annual physicals (\$15,000) and software (\$7,000) are offset by cuts, primarily to maintenance areas (\$16,000) and some other areas.

Budgetary Category	FY 2022	FY 2023	Difference	% over 2022
Administration	\$ 427,550	\$ 449,550	\$ 22,000	5%
Maintenance	\$ 177,648	\$ 160,480	\$ (17,168)	-10%
Operations	\$ 184,650	\$ 181,650	\$ (3,000)	-2%
TOTAL	\$ 789,848	\$ 791,680	\$ 1,832	0.2%

The following table shows the comparative year-over-year totals for each detailed sub-category of expense.

Budget Sub-Category Totals	FY 2022	FY 2023
Office Expenses Total	\$ 17,050	\$ 17,050
Pagers Total	\$ 8,000	\$ 8,000

Budget Sub-Category Totals	FY 2022	FY 2023
Radios Total	\$ 15,000	\$ 15,000
Accountability Total	\$ 1,500	\$ 1,500
Explorers Total	\$ 4,500	\$ 4,500
Fire Police Equipment Total	\$ 1,000	\$ 1,000
Fire Police PPE Total	\$ 3,000	\$ 3,000
Record Management System Total	\$ 5,000	\$ 12,000
Medical Exams Total	\$ 39,000	\$ 54,000
Gas Powered Tools Total	\$ 1,000	\$ 1,000
Ground Ladders Total	\$ 1,000	\$ 1,000
Hazardous Materials Total	\$ 750	\$ 750
Building Maintenance Total	\$ 41,000	\$ 29,500
Metering Total	\$ 6,000	\$ 6,000
Vehicle Exhaust System Cleaning Total	\$ 5,500	\$ 1,000
SCBA Total	\$ 12,500	\$ 12,500
Repair & Preventative Maintenance Total	\$ 101,168	\$ 100,000
Portable Extinguishers Total	\$ 1,500	\$ 1,500
All Stations Total	\$ 3,000	\$ 3,000
Avon/FFD Training Facility Total	\$ 5,000	\$ 5,000
Firefighter PPE Total	\$ 48,000	\$ 68,000
Ice Machine Maintenance Total	\$ 800	\$ 800
Security Total	\$ 8,800	\$ 8,800
Storage Building Lease Total	\$ 4,700	\$ 4,700
Firefighting Equipment Total	\$ 20,700	\$ 22,700
Water Cooler Maintenance Total	\$ 1,680	\$ 1,680
Program Delivery Total	\$ 6,000	\$ 6,000
Hardware Total	\$ 6,000	\$ 6,000
Mobile Data Terminals Total	\$ -	\$ -
Online Services Total	\$ 27,500	\$ 27,500
Hose Total	\$ 21,500	\$ 18,500
Service Providers Total	\$ 28,000	\$ 28,000
Software Total	\$ 8,500	\$ 8,500
Fitness Total	\$ 3,000	\$ 3,000
Immunizations Total	\$ 2,500	\$ 2,500
Medical Equipment Total	\$ 7,500	\$ 7,500
Rescue Tools Total	\$ 25,200	\$ 5,200
Allowance Total	\$ 3,000	\$ 3,000
Awards Total	\$ 3,000	\$ 3,000
Background Checks Total	\$ 3,000	\$ 3,000
Employee Assistance Program Total	\$ 3,000	\$ 3,000
Expense Reimbursement Total	\$ 110,000	\$ 110,000

Budget Sub-Category Totals	FY 2022	FY 2023
Food Total	\$ 9,000	\$ 9,000
Insurance Total	\$ 11,000	\$ 11,000
LOSAP Total	\$ 47,000	\$ 47,000
Recruitment Total	\$ 16,000	\$ 16,000
Steward Total	\$ 11,500	\$ 11,500
Conferences & Seminars Total	\$ 5,000	\$ 5,000
Courses Total	\$ 27,000	\$ 27,000
Materials Total	\$ 6,000	\$ 6,000
Professional Organizations Total	\$ 4,000	\$ 4,000
Travel Total	\$ 17,500	\$ 17,500
Cleaning Supplies Total	\$ 1,000	\$ 1,000
Emergency Lighting Installation Total	\$ 9,000	\$ 9,000
Equipment Mounting Total	\$ 1,000	\$ 1,000
Foam Total	\$ 3,500	\$ 2,000
Registrations, Permits Total	\$ 500	\$ 500
Reflective Striping Total	\$ 6,000	\$ 5,500
GRAND TOTAL	\$ 789,848	\$ 791,680

Specific budget categories that are subject to change are:

- **Medical Exams** - Budgeting for the annual physical has increased by \$15,000 (\$39,000 to \$54,000) from the FY 2022 level.
- **Records Management** - Budgeting for records management has increased by \$7,000 (\$5,000 to \$12,000) as the FireHouse Software currently used reaches end of life and new software is sought.
- **Vehicle Exhaust System Cleaning** - The amount for cleaning the vehicle exhaust system has reduced by \$4,500 (\$5,500 to \$1,000).
- **Building Maintenance** - General building maintenance money has been reduced by \$11,500 (\$41,000 to \$29,500), 28% of the FY 2022 budgeted amount. The specifics of these reductions are not spelled out.
- **Vehicle Repair and Maintenance** - Budgeting for vehicle repair and maintenance has decreased by \$1,168 (\$101,168 to \$100,000).
- **Firefighter Personal Protective Equipment** - Firefighter PPE increased by \$20,000 (\$43,000 to \$63,000) for five new sets of PPE. This money was moved from the Rescue Tools budget.
- **Firefighting Equipment** - Budgeting for firefighting equipment has increased by \$2,000 (\$20,700 to \$22,700) for Hurst battery replacement.

- **Rescue Tools** - The rescue tools budget declined by \$20,000 (\$25,000 to \$5,000), with the money being shifted to the Firefighter PPE described above.
- **Reflective Striping** - Budgeting for reflective striping has been reduced by \$500 (\$6,000 to \$5,500).
- **Hose** - Budgeting for hose appliances and fittings has been reduced by \$3,000 (\$21,500 to \$18,500).
- **Foam** - Budgeting for foam has been reduced by \$1,500 (\$3,500 to \$2,000).

Other Town Financial Support

In addition to the funding given to AVFD, the Town spends another \$1.3 million in other support for fire protection. \$935,000 is for fire hydrant rental from Connecticut Water. The additional expenditures for Fire Protection include the Fire Marshal's Office and the clerical support given to AVFD. The town has two clerical employees that support the operations of AVFD. They assist with managing financial management, tracking reimbursements, the Length of Service Awards Program and operational records. Also, the Fire Marshal is the volunteer Fire Chief for the AVFD and one of the Assistant Fire Marshals is an assistant fire chief. Both individuals are able to conduct essential AVFD business during their time

In addition to the funds outlined above for operating expenses, the AVFD leadership has identified about \$12.5 million in capital expenses over their 2023 to 2026 Capital Improvement Plan. The tentative plan includes the acquisition of a new ladder truck, a new engine/tanker and a new fire station to replace Station #2. The actual capital improvements may change based on the outcome of this project and the availability of the funds inside the Town's budget.

Membership Survey

The AVFD member survey was open from February 24, 2022, to March 15, 2022, and garnered 98 responses, in total. Demographic information is presented at the end of the analysis.

Percentages in the following tables may not always sum to 100 due to rounding. Not all respondents answered every question, resulting in different totals per question. Blank or non-response answers are excluded from relevant bivariate analyses (e.g., when analyzing responses to some other question by age group, those respondents who did not indicate their age group are excluded from counts).

Responses

Q.1: Volunteer hours per week

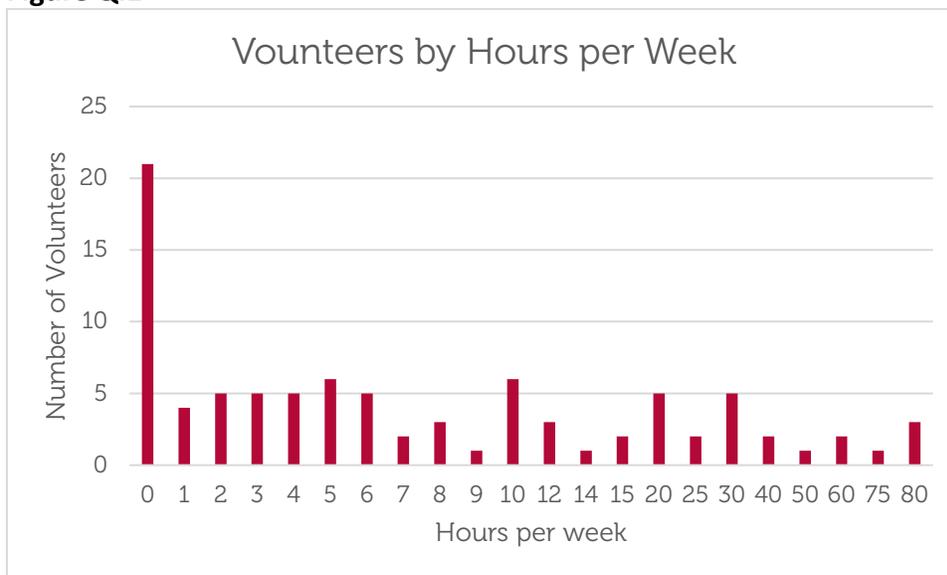
Respondents reported an average (mean) of approximately 13 hours per week over the past six months. However, this average is shaped by extremes at both the high and low end that make this distribution of hours less even than it might appear.

At the low end, 21 respondents report zero hours per week. At the high end, three respondents report 80 hours per week. The median (middle value with an equal number of responses above and below) is 5 hours per week.

Table Q.1a: Averaged over the past 6 months, how many hours per week do you volunteer at Avon FD, including calls, training, meetings and fundraising?

Minimum	0 hours
Maximum	80 hours
Mean Average	12.9 hours
Median	5 hours

Figure Q.1



Volunteer hours by age range

Percent above and below average by age range

Using the 13 hours per week mean average identified above, Volunteer hours were analyzed to examine whether there are patterns that significantly differ by age. Significant differences were not identified. The 50-59 age range, which is the age range with the largest portion of volunteers (see Q. 28 below), has the largest proportions of volunteers both above and below average. In general, at nearly all age ranges, more volunteers are below the mean average than above it.

Table Q.1b: % above and below average weekly hrs by age range	# Below 13 hr/wk average	%	# At or above 13 hr/wk average	%
Under 18-29	4	8%	3	17%
30-39	6	11%	3	17%
40-49	7	13%	3	17%
50-59	15	28%	6	33%
60-69	11	21%	2	11%
70+	10	19%	1	6%
Total	53		18	

Average weekly hours by age range

Analysis of average weekly hours by age range shows some difference. Age ranges under 50 have nearly double the average hours of volunteering per week as those above 50.

Table Q.1c: Age	Mean Average Hours per Week
Under 18-29	16
30-39	17
40-49	20
50-59	11
60-69	10
70+	9

Average weekly hours by year joined

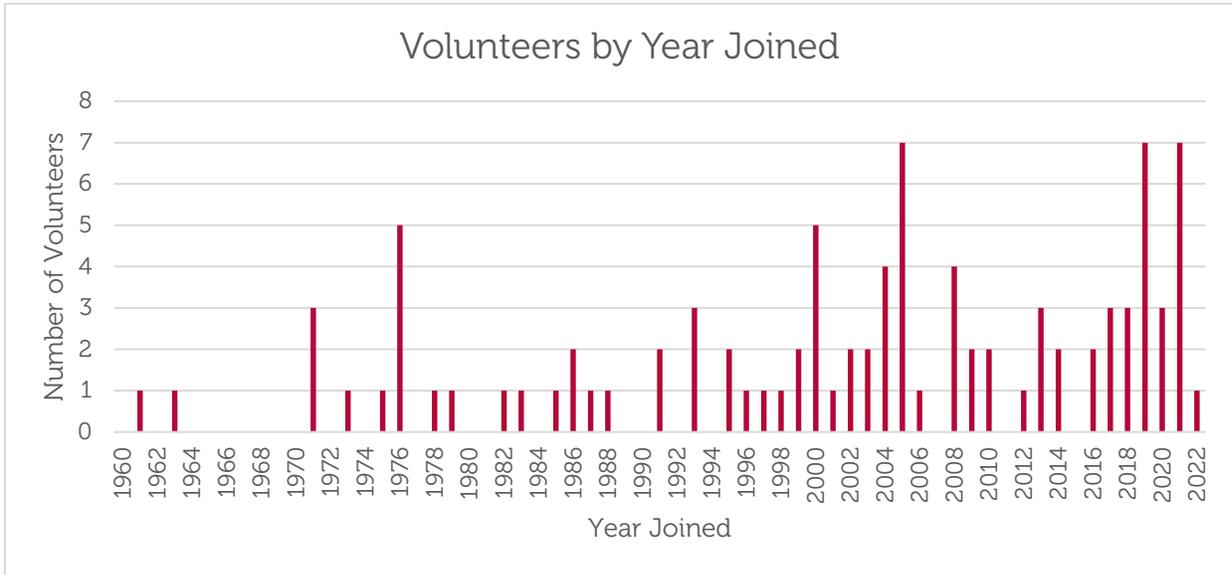
Respondents who joined more recently (within the last decade, or in the previous decade to that) average slightly more hours per week compared with those who had joined earlier, but this is not a significant difference.

Table Q.1d: Year joined	Mean Average Hours per Week
Joined 2012-2022	13.4
Joined 2001-2011	12.9
Joined before 2001	12.5

Q.2: Year began volunteering

An average of 1.5 volunteers join per year, although in reality there are several in some years and none in others. Within the last five years, between 3-7 volunteers have joined per year.

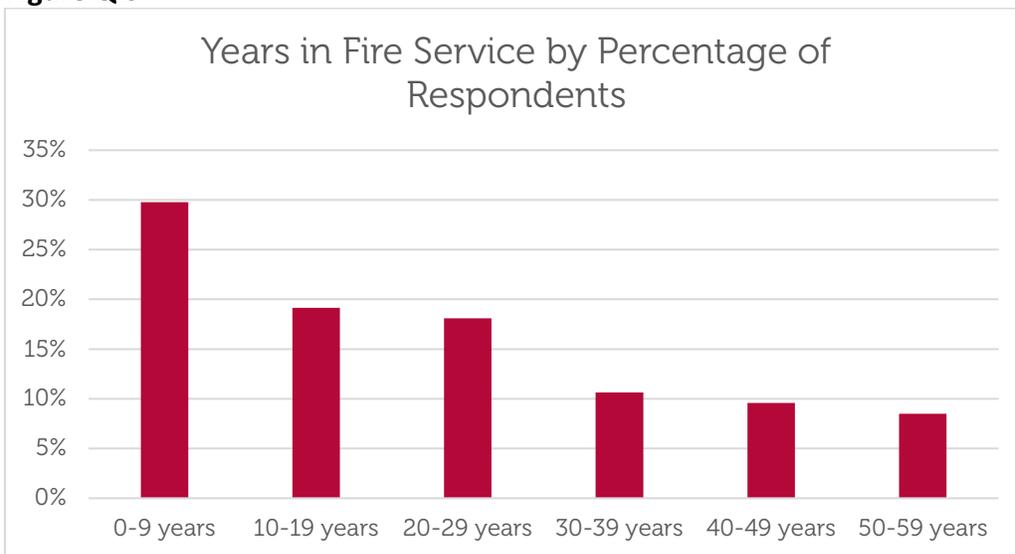
Figure Q.2



Q.3: Years in fire service

Respondents were asked how many years they had been in fire service, including time outside of Avon FD. The largest proportion (30%) have fewer than 10 years of service. Nearly 40% have between 10 and 29 years of service, while around 10% each have 30-39 years, 40-49 years and 50-59 years, respectively.

Figure Q.3



Age range, fewer than 10 years of fire service

The age range for those with fewer than 10 years of fire service was broadly distributed, with the largest proportion in the 30-39 age range. This suggests that the fire service has garnered new members of all ages.

Table Q.3: Age range of those with fewer than 10 years in fire service

	%	#
Under 18-29	24%	5
30-39	29%	6
40-49	14%	3
50-59	19%	4
60-69	14%	3

Q.4: Explorer/Junior Firefighter experience

Respondents were asked if their first experience in fire service was as an Explorer or Junior Firefighter. Nearly 30% said it was.

Table Q.4: Was your first experience in the fire service as an Explorer or Junior Firefighter?

	%	#
Yes	29%	28
No	71%	68

Q.5: Role in department

Respondents were asked what their role in the department is. The largest segment (28%) are interior firefighters.

Table Q.5: What is your role with the department?

	%	#
Firefighter (interior)	28%	27
Firefighter (exterior)	18%	17
Fire Police	9%	9
Administrative Support	16%	15
Explorer	2%	2
Retired Member	19%	18
Other	2%	2
Choose not to reply	6%	6

Q.6: Division

Respondents were asked which company or division they are assigned to.

Table Q.6: Which company are you assigned to?

Company 1	17%	16
Company 2	5%	5
Company 3	25%	23
Company 4	13%	12
Headquarters	21%	19
Fire Police	8%	7
Explorers	1%	1
Retired from service	10%	9

Q.7: Recommend Avon FD

Respondents were asked whether they'd be likely to suggest friends or neighbors become volunteers. Close to two-thirds are either very likely or somewhat likely to recommend volunteering to friends or neighbors. A fifth of respondents were somewhat or very unlikely to recommend it.

Table Q.7: How likely would you be to suggest to a friend or neighbor to join Avon FD as a volunteer?

	%	#
Very likely	37%	36
Somewhat likely	27%	26
Neither likely nor unlikely	15%	15
Somewhat unlikely	11%	11
Very unlikely	9%	9

Q.8: Reason began volunteering

Respondents were asked to rank the top three reasons why they began volunteering and given eight initial options, plus an "Other" write-in option. The highest-ranked first and second reason (highlighted in orange) is those wanting to give back to the community. Volunteering for the training and education involved is the highest-ranked third reason. The write-in responses to the "Other" option were shared with the study committee.

Table Q.8: Why did you begin volunteering? (Rank the top three reasons.)	First reason	#	Second reason	#	Third reason	#	Total
Desire to give back to the community	37%	35	34%	30	14%	11	76
Informal tradition/ the way I grew up/ recruited by family	21%	20	6%	5	13%	10	35
Recruited by friend or neighbor	18%	17	17%	15	8%	6	38
Inspired by an emergency event	7%	7	7%	6	20%	16	29

Seeking a career and wanted volunteer experience	6%	6	7%	6	11%	9	21
Training and education	5%	5	9%	8	23%	18	31
Joined as an Explorer/junior member and continued to full membership	4%	4	17%	15	1%	1	20
Incentives offered by organization (LOSAP, tuition, tax credit, expense reimbursement)	1%	1	2%	2	10%	8	11
Other (please specify)							12

Q.9: Are retention efforts succeeding?

Respondents were asked if Avon FD has done enough to retain its members. About 30% said yes, while about 70% said no.

Table Q.9: Do you feel that Avon FD has done enough to retain its members?

	%	#
Yes	31%	27
No	69%	61

Q.10: What succeeds in retention?

Respondents were asked what is successful in retaining current volunteers and given sixteen initial options, plus an "Other" write-in option. They were asked to rank the top five options. The highest-ranked first option was having a feeling of belonging and being part of a team. The write-in responses to the "Other" option were shared with the study committee.

Table Q.10: What do you feel has been successful in retaining current volunteers in your department? (Rank the top five.)

	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
A feeling of belonging/Inclusion/Being part of a 'team'	36%	30	7%	5	13%	9	8%	5	5%	3	52
Nothing has been successful	13%	11	3%	2	1%	1	0%	0	10%	6	20
Feeling needed	10%	8	8%	6	11%	8	11%	7	6%	4	33
Recognition by community	8%	7	13%	10	10%	7	6%	4	6%	4	32
Opportunities to advance/gain experience	6%	5	11%	8	8%	6	10%	6	6%	4	29
Good communication	5%	4	3%	2	8%	6	3%	2	2%	1	15
Being used on calls/A good call volume	5%	4	7%	5	6%	4	8%	5	8%	5	23

Table Q.10: What do you feel has been successful in retaining current volunteers in your department? (Rank the top five.)											
	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
Feeling safe at trainings & operations	5%	4	4%	3	8%	6	10%	6	3%	2	21
A sense that everyone is respected/included in decisions	4%	3	13%	10	4%	3	2%	1	10%	6	23
Incentives offered by organization (LOSAP, tuition, tax credit, expense reimbursement)	4%	3	7%	5	13%	9	10%	6	10%	6	29
Department clothing/memorabilia	2%	2	1%	1	1%	1	3%	2	10%	6	12
Incentive programs (gift cards/gym memberships)	1%	1	3%	2	1%	1	6%	4	6%	4	12
Being able to travel to conferences	1%	1	4%	3	3%	2	0%	0	0%	0	6
Robust training program	0%	0	8%	6	3%	2	6%	4	6%	4	16
Social activities	0%	0	8%	6	8%	6	10%	6	8%	5	23
Strong leadership in organization	0%	0	3%	2	1%	1	8%	5	5%	3	11
Other (please specify)											11

Q.11: Focus of retention efforts

Respondents were asked what is successful in retaining current volunteers and given fifteen initial options, plus an "Other" write-in option. The highest-ranked first option was having a feeling of belonging and being part of a team. The write-in responses to the "Other" option were shared with the study committee.

Table Q.11: What areas do you think the AVFD should focus on to retain volunteers? (Rank the top five.)											
	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
A feeling of belonging/Inclusion/Being part of a 'team'	29%	24	15%	13	6%	5	8%	6	16%	12	60
Strong leadership in organization	24%	20	9%	8	11%	9	14%	11	7%	5	53

Table Q.11: What areas do you think the AVFD should focus on to retain volunteers? (Rank the top five.)											
	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
A sense that everyone is respected/included in decisions	15%	13	28%	24	17%	14	10%	8	1%	1	60
Good communication	10%	8	12%	10	25%	21	10%	8	1%	1	48
Feeling needed	8%	7	5%	4	11%	9	9%	7	11%	8	35
Robust training program	2%	2	5%	4	8%	7	3%	2	3%	2	17
Being used on calls/A good call volume	2%	2	4%	3	4%	3	6%	5	5%	4	17
Feeling safe at trainings & operations	2%	2	7%	6	2%	2	6%	5	4%	3	18
Opportunities to advance/gain experience	2%	2	2%	2	2%	2	11%	9	18%	13	28
Social activities	1%	1	0%	0	5%	4	9%	7	9%	7	19
Incentive programs (gift cards/gym memberships)	1%	1	4%	3	1%	1	1%	1	7%	5	11
Recognition by community	1%	1	8%	7	5%	4	8%	6	5%	4	22
Nothing has been successful	1%	1	0%	0	0%	0	0%	0	4%	3	4
Department clothing/memorabilia	0%	0	1%	1	2%	2	3%	2	7%	5	10
Being able to travel to conferences	0%	0	0%	0	1%	1	4%	3	1%	1	5
Other (please specify)											6

Q.12: Are recruitment efforts succeeding?

Respondents were asked whether enough is being done to recruit new members. A quarter said that it was and three-quarters said it was not.

Table Q.12: Do you feel that Avon FD does enough to recruit new members?		
	%	#
Yes	25%	22
No	75%	65

Q.13: Improving recruitment

Respondents were asked what could be done to improve recruitment and given seventeen initial options, plus an "Other" write-in option. The highest-ranked first option was having a feeling of belonging and being part of a team. The write-in responses to the "Other" option were shared with the study committee.

Table Q.13: What could be done to improve the recruitment of new volunteers to Avon FD? (Please select the top 5 actions.)											
	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
Better advertising of need/better recruitment of volunteers	22%	19	14%	12	5%	4	7%	5	11%	6	46
Effective orientation process	18%	16	19%	16	14%	11	10%	7	9%	5	55
Value volunteer contributions more	15%	13	13%	11	7%	6	6%	4	4%	2	36
Mentor or coach assigned to each new member	11%	10	18%	15	19%	15	13%	9	5%	3	52
Reduce intake & qualification requirements	10%	9	2%	2	6%	5	7%	5	5%	3	24
More/better tax breaks/benefits/incentives	7%	6	5%	4	5%	4	9%	6	5%	3	23
Add/improve junior member or explorer program	5%	4	2%	2	5%	4	0%	0	5%	3	13
Have nicer stations	5%	4	9%	8	7%	6	13%	9	7%	4	31
Reduce training time	2%	2	9%	8	4%	3	1%	1	2%	1	15
Have a space to work at the station	2%	2	0%	0	6%	5	6%	4	14%	8	19
Pay-per-call program	1%	1	2%	2	1%	1	3%	2	4%	2	8
Volunteer retirement program	1%	1	2%	2	6%	5	6%	4	7%	4	16
Property tax reduction	1%	1	0%	0	4%	3	7%	5	11%	6	15
More social activities	0%	0	2%	2	6%	5	4%	3	11%	6	16
Expense reimbursement	0%	0	0%	0	2%	2	4%	3	0%	0	5
Other (please specify)											11

Q.14: Likelihood of continuing volunteering

Respondents were asked how likely they are to continue volunteering over the next five years. A majority, 52%, state they are somewhat or very likely to continue, while a quarter state they are somewhat or very unlikely to continue.

Table Q.14a: How likely are you to continue volunteering as a firefighter over the next 5 years?		
	%	#
Very likely	35%	31
Somewhat likely	17%	15
Unsure	22%	20
Somewhat unlikely	4%	4
Very unlikely	21%	19

Age and likelihood to continue volunteering

There is not a clear pattern in age with likelihood to continue volunteering. Orange highlighting indicates the option with the highest level of responses for each age group.

Table Q.14b: Likelihood of continuing volunteering, by age range	Very likely to continue		Somewhat likely		Unsure		Somewhat unlikely		Very unlikely	
	%	#	%	#	%	#	%	#	%	#
Under 18-29	7%	2	18%	2	6%	1	0%	0	13%	2
30-39	22%	6	9%	1	19%	3	0%	0	0%	0
40-49	15%	4	27%	3	6%	1	25%	1	13%	2
50-59	30%	8	27%	3	25%	4	25%	1	27%	4
60-69	22%	6	9%	1	13%	2	0%	0	27%	4
70+	4%	1	9%	1	31%	5	50%	2	20%	3
Total	100%	27	100%	11	100%	16	100%	4	100%	15

Interior firefighters' likelihood to continue volunteering

Interior firefighters are more apt to report themselves likely to continue volunteering than unlikely, with nearly half very likely to continue.

Table Q.14c: Interior firefighters' likelihood to continue volunteering over the next 5 years	%	#
Very likely	46%	12
Somewhat likely	15%	4
Unsure	19%	5
Somewhat unlikely	4%	1
Very unlikely	15%	4

Q.15: Barriers to volunteering

Respondents were asked what barriers prevent them from giving more time as a volunteer. Orange highlighting indicates the option that received the highest number of rankings as first, second and third place barriers. In this case, time pressures from personal life ranked highest across the board as the most significant barriers.

Table Q.15: What barriers prevent you from giving more time as a volunteer?	1st	#	2nd	#	3rd	#	Total
Time pressures from personal life	28%	24	23%	18	18%	11	53
Organizational leadership is inadequate	28%	24	9%	7	11%	7	38
Time pressures from work	22%	19	15%	12	6%	4	35
Other hobbies	4%	3	12%	9	10%	6	18

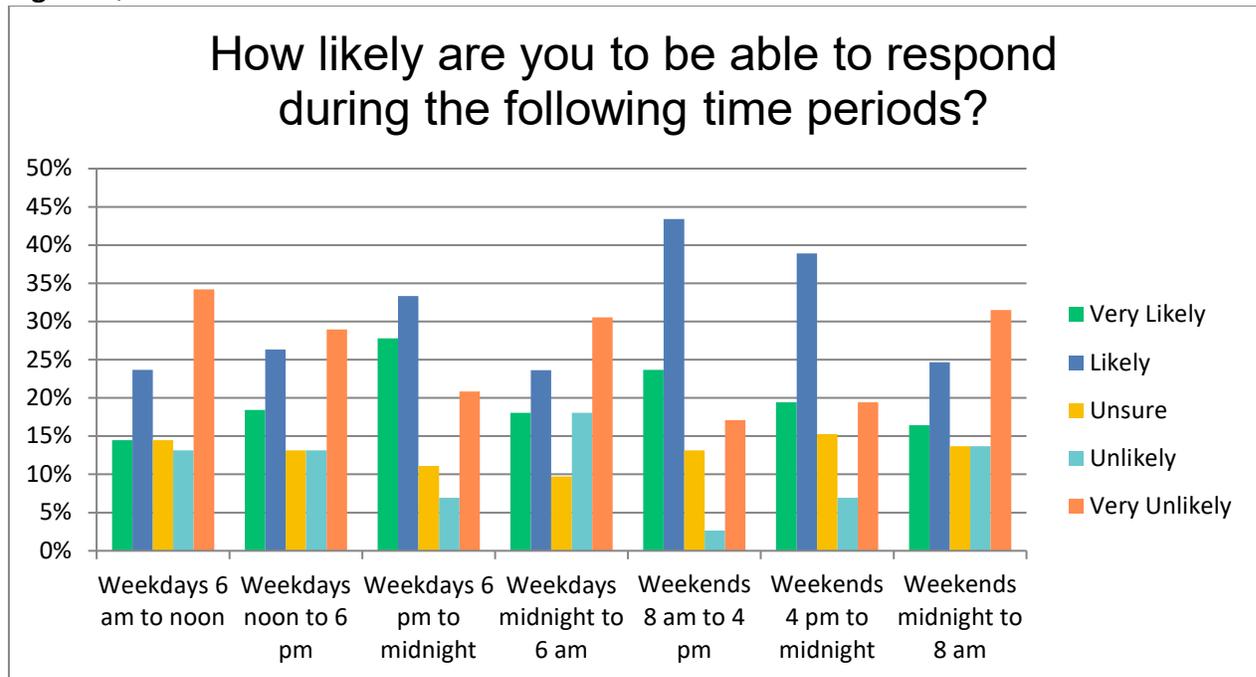
Other volunteering	4%	3	3%	2	8%	5	10
Organizational policies/requirements are too strict	4%	3	10%	8	8%	5	16
Inadequate support from local officials	2%	2	5%	4	5%	3	9
Volunteering is no longer personally rewarding	2%	2	9%	7	13%	8	17
Job is physically demanding	2%	2	0%	0	2%	1	3
Other volunteers are unwelcoming	1%	1	5%	4	5%	3	8
Required time commitments (certifications, call volume, points, parades)	1%	1	6%	5	10%	6	12
Too many false alarms/nuisance calls	1%	1	0%	0	3%	2	3
Feeling unappreciated by the public	0%	0	3%	2	2%	1	3
PTSD/work-related stress	0%	0	0%	0	0%	0	0
Other (please specify)							13

Q.16: Response Availability

Respondents were asked to rate their availability for response during four weekday time periods and three weekend time periods. The highest value for each time period is highlighted in orange. Larger proportions indicate unavailability for most weekday time periods, except in the evening. On the weekends, the largest proportions indicate daytime and evening availability, with less overnight availability.

Table Q.16a: How likely are you to be able to respond during the following time periods?	Very Likely	#	Likely	#	Unsure	#	Unlikely	#	Very Unlikely	#	Total
Weekdays 6 am to noon	14%	11	24%	18	14%	11	13%	10	34%	26	76
Weekdays noon to 6 pm	18%	14	26%	20	13%	10	13%	10	29%	22	76
Weekdays 6 pm to midnight	28%	20	33%	24	11%	8	7%	5	21%	15	72
Weekdays midnight to 6 am	18%	13	24%	17	10%	7	18%	13	31%	22	72
Weekends 8 am to 4 pm	24%	18	43%	33	13%	10	3%	2	17%	13	76
Weekends 4 pm to midnight	19%	14	39%	28	15%	11	7%	5	19%	14	72
Weekends midnight to 8 am	16%	12	25%	18	14%	10	14%	10	32%	23	73

Figure Q.16



Availability of interior firefighters

The largest proportion of interior firefighters report themselves likely to be available during most times throughout weekdays and weekends.

Table Q.16b: How likely are you to be able to respond during the following time periods?

	Very Likely	#	Likely	#	Unsure	#	Unlikely	#	Very Unlikely	#	Total
Weekdays 6 am to noon	14%	3	32%	7	27%	6	27%	6	9%	2	22
Weekdays noon to 6 pm	14%	3	41%	9	18%	4	27%	6	9%	2	22
Weekdays 6 pm to midnight	50%	11	36%	8	5%	1	9%	2	9%	2	22
Weekdays midnight to 6 am	38%	8	43%	9	5%	1	14%	3	14%	3	21
Weekends 8 am to 4 pm	35%	8	52%	12	13%	3	0%	0	4%	1	23
Weekends 4 pm to midnight	30%	7	52%	12	13%	3	4%	1	4%	1	23
Weekends midnight to 8 am	36%	8	36%	8	18%	4	9%	2	9%	2	22

Q.17: Likelihood to continue if paid staff are added

Respondents were asked how likely they would be to continue volunteering at their current level if paid staff are added. Slightly more than half (52%) report being somewhat or very likely to continue at the same level. Slightly more than a quarter (27%) report being somewhat or very unlikely to continue at the same level.

Table Q.17: How likely are you to continue volunteering at your current level of activity if Avon FD adds paid staff?	%	#
Very likely	27%	24
Somewhat likely	25%	22
Neither likely nor unlikely	13%	12
Somewhat unlikely	9%	8
Very unlikely	18%	16
Unsure	8%	7
Total		89

Q.18: Strengths of Avon FD

Respondents were asked what they see as the strengths of Avon FD, with the option to rank up to five. Equipment was ranked as the highest first-place strength. The highest value for each ranking is highlighted in orange. The write-in responses to the “Other” option were shared with the study committee.

Table Q.18: What do you see as strengths of Avon FD?	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
Equipment	25%	19	11%	8	10%	7	3%	2	2%	1	37
Volunteers	19%	15	11%	8	4%	3	10%	6	11%	6	38
Professionalism of the staff	14%	11	7%	5	1%	1	5%	3	7%	4	24
Quality of apparatus	8%	6	4%	3	14%	10	5%	3	4%	2	24
Training	6%	5	8%	6	21%	15	8%	5	7%	4	35
Staying current/progressive with new practices & technology	6%	5	4%	3	8%	6	12%	7	9%	5	26
Connection with community	6%	5	8%	6	3%	2	24%	14	7%	4	31
Response times	5%	4	5%	4	4%	3	8%	5	9%	5	21
Financial situation	4%	3	13%	10	3%	2	3%	2	9%	5	22
Board Leadership	1%	1	7%	5	3%	2	0%	0	6%	3	11
Operational Leadership	1%	1	11%	8	4%	3	3%	2	4%	2	16
Department atmosphere	1%	1	1%	1	3%	2	3%	2	4%	2	8
Public perception	1%	1	5%	4	17%	12	7%	4	9%	5	26
Internal communication	0%	0	1%	1	0%	0	2%	1	4%	2	4
Quality of the stations	0%	0	1%	1	0%	0	2%	1	2%	1	3
Incentives to volunteer	0%	0	3%	2	6%	4	3%	2	6%	3	11
Other (please specify)											7

Q.19: Weaknesses of Avon FD

Respondents were asked what they see as the weaknesses of Avon FD, with the option to rank up to five. Operational leadership was ranked as the highest first-place

weakness. The highest value for each ranking is highlighted in orange. The write-in responses to the “Other” option were shared with the study committee.

Table Q.19: What do you see as weaknesses of the fire service from Avon FD?											
	1st	#	2nd	#	3rd	#	4th	#	5th	#	Total
Operational Leadership	22%	17	22%	17	4%	3	3%	2	7%	4	43
Department atmosphere	18%	14	10%	8	11%	8	18%	11	12%	7	48
Quality of the stations	12%	9	12%	9	10%	7	10%	6	10%	6	37
Internal communication	10%	8	14%	11	18%	13	8%	5	13%	8	45
Board Leadership	9%	7	17%	13	6%	4	8%	5	3%	2	31
Professionalism of the staff	6%	5	1%	1	11%	8	2%	1	12%	7	22
Volunteers	6%	5	0%	0	4%	3	6%	4	2%	1	13
Incentives to volunteer	6%	5	5%	4	7%	5	10%	6	7%	4	24
Equipment	4%	3	0%	0	0%	0	0%	0	0%	0	3
Response times	3%	2	5%	4	6%	4	6%	4	2%	1	15
Training	1%	1	3%	2	3%	2	5%	3	5%	3	11
Public perception	1%	1	1%	1	4%	3	6%	4	10%	6	15
Connection with community,	1%	1	5%	4	3%	2	6%	4	3%	2	13
Staying current/progressive with new practices & technology	0%	0	0%	0	7%	5	8%	5	3%	2	12
Financial situation	0%	0	3%	2	1%	1	2%	1	5%	3	7
Quality of apparatus	0%	0	3%	2	4%	3	2%	1	7%	4	10
Other (please specify)											11

Q.20: EMS Involvement

Respondents were asked what involvement Avon VFD should have with EMS going forward. About half of respondents support maintaining the current involvement of providing minimal response on only fire-related calls.

Table Q.20: What involvement do you think AVFD should have with EMS going forward?		
	%	#
Stay as we are, providing minimal response only on fire-related calls.	49%	40
Expand the first responder capacity and regularly respond to life-threatening calls.	20%	16
Serve as a backup to the police department and provide first response only if they aren't available.	17%	14

Expand the first responder capacity and regularly respond to all medical calls.	15%	12

Q.21: Barriers to improving service

Respondents were asked in an open-ended question what barriers they see to improving fire service, resulting in 58 comments. The comments were coded and thematically grouped (some comments contained multiple themes). The theme with the largest number of responses (16 responses) identified senior leadership, principally indicated as departmental leadership, but also including town leadership, as a barrier. The second barrier identified (8 responses) identified general resistance to change as a major barrier. The third barrier identified (7 responses) was as a shortage of volunteers, which was variously discussed as a recruitment problem and as an issue with staffing emergency incidents. The write-in responses to the "Other" option were shared with the study committee.

Table Q.21: What barriers do you see to improving fire service in Avon FD?	# of responses mentioning issue
Senior leadership	16
Resistance to change	8
Recruitment problems/volunteer staffing shortages	7
Financial limitations	5
Politics and favoritism	5
Low turnout/limited member availability	4
Poor communication practices/resistance to input & criticism	4
Lack of ability to vote for officers	2
Other issues	26

Q.22: Operational leadership rating

Respondents were asked to give a general rating of Avon FD's operational leadership. Opinion was evenly divided: the largest proportion (a third of respondents) rated it as average, and roughly a third each rated it as strong/very strong or weak/very weak, respectively.

Table Q.22a: Please give us a general rating of Avon FD's operational leadership:	%	#
Very strong	6%	5
Strong	27%	23
Average	33%	28
Weak	19%	16
Very weak	15%	13
Total		85

Operational leadership rating by selected groups

The largest proportion of most subgroups rate operational leadership as average, although younger members tend to rate it somewhat more strongly.

Operational leadership rating	Interior firefighters		Under age 50		Age 50+		More active (over 13 hours per week)		Less Active (under 13 hours per week)	
	%	#	%	#	%	#	%	#	%	#
Very strong	12%	3	7%	2	7%	3	8%	2	5%	3
Strong	16%	4	32%	9	30%	13	23%	6	28%	18
Average	36%	9	25%	7	34%	15	31%	8	34%	22
Weak	24%	6	21%	6	14%	6	19%	5	20%	13
Very weak	12%	3	14%	4	16%	7	19%	5	13%	8
Total	100%	25	100%	28	100%	44	100%	26	100%	64

Q.23: Board leadership rating

Respondents were asked to give a general rating of Avon FD's board leadership. The largest proportion (43%) rated board leadership as average.

	%	#
Very strong	2%	2
Strong	21%	18
Average	43%	37
Weak	24%	21
Very weak	9%	8
Total		86

Board leadership rating by selected groups

The largest proportion of the selected subgroups rate board leadership as average, across the board.

Board leadership rating	Interior firefighters		Under age 50		Age 50+		More active (over 13 hours per week)		Less Active (under 13 hours per week)	
	%	#	%	#	%	#	%	#	%	#
Very strong	0%	0	4%	1	0%	0	0%	0	2%	1
Strong	20%	5	21%	6	22%	10	19%	4	23%	14
Average	44%	11	36%	10	53%	24	48%	10	42%	25
Weak	28%	7	29%	8	20%	9	19%	4	27%	16

Very weak	8%	2	11%	3	4%	2	14%	3	7%	4
Total	100%	25	100%	28	100%	45	100%	21	100%	60

Q.24: Training burden

Respondents were asked to give a rating of their training burden. Nearly half (47%) say it is just right.

Table Q.24: Please give us a general rating of the training burden for your position:	%	#
Too much	6%	5
A lot	17%	13
Just right	47%	36
A little	19%	15
Too little	10%	8
Total		77

Q.25: Willingness to meet financial obligations

Respondents were asked to rate the town's willingness to meet financial obligations. The largest proportion, nearly a third (32%), rate the town as neutral in this regard. Nearly half (47%) rate the town as underprepared or very underprepared.

Table Q.25: How would you rate your town's willingness to meet financial obligations, such as purchasing equipment and maintaining facilities?	%	#
Very well prepared	8%	7
Well prepared	13%	11
Neutral	32%	27
Underprepared	29%	24
Very underprepared	18%	15
Total		84

Q.26: Investment priorities

Respondents were asked to rate how important it is for the town to invest in seven areas, from stations to equipment, to staff. The highest percentage in each area is highlighted in orange. Improvements to fire stations and the purchase of new apparatus were all rated as very important by the largest proportion of respondents, while hiring full-time career firefighters was rated as not necessary by the largest proportion.

Table Q.26: Please indicate how important it is for the Town of Avon to invest in each of the following items:	Very important		Important		Unsure		Not important		Not necessary at this time		Total
	%	#	%	#	%	#	%	#	%	#	
Renovating existing fire stations	52%	44	33%	28	4%	3	10%	8	1%	1	84
Building new fire stations	45%	38	19%	16	18%	15	14%	12	4%	3	84
Purchasing new apparatus	40%	33	39%	32	12%	10	6%	5	4%	3	83
Hiring additional administrative staff	6%	5	23%	19	36%	30	17%	14	18%	15	83
Hiring other support staff to perform routine truck checks and maintain equipment	4%	3	39%	32	26%	21	9%	7	23%	19	82
Hiring some career firefighters to work during the daytime	12%	10	22%	19	31%	27	8%	7	27%	23	86
Hiring some career firefighters to work all the time	11%	9	7%	6	31%	26	13%	11	38%	32	84

Q.27: Other thoughts

Respondents were asked whether there were any other thoughts they would like to share. Twenty-five respondents made substantive comments. The comments were coded and thematically grouped (some comments contained multiple themes). Those themes that appeared in more than one comment are displayed in the table below.

Three themes showed up in six comments apiece. The first theme was that the leadership of the department needs to improve; some of these comments simply stated this position while others gave specific areas for improvement. A related, second theme was that more respect and appreciation should be shown for volunteers, including recognizing their time and effort and listening more attentively to firefighters. The third theme was that the department needs to switch to career firefighters, because adequate volunteer levels cannot be sustained.

A fourth theme, representing four comments, was that members needed to be more committed and share the burden more effectively, so that a minority of members were not doing a majority of the work. A fifth theme, from two comments, stressed that the department should stay volunteer and some members would leave if more career/paid firefighters were hired. A sixth theme, from two comments, stated that the department should regionalize or combine in some fashion with Canton and Simsbury.

A number of additional comments expressed unique sentiments that were not repeated in any other comments. The write-in responses were shared with the study committee.

Table Q.27: Is there anything else you would like to share?		#
Better leadership		6
Respect and appreciation		6
Switch to career		6
More commitment/discipline/response needed from members		4
Stay volunteer		2
Regionalize or merge w/ Canton or others		2
Stations need an upgrade		2
Other unique themes		19

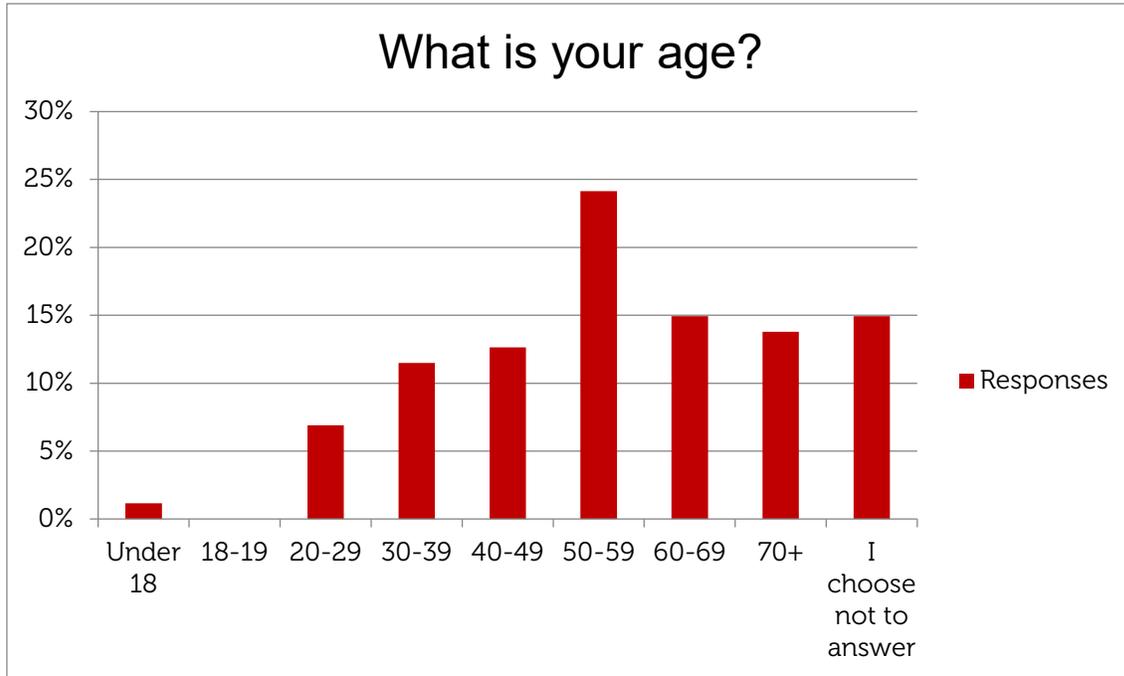
Demographics of Respondents

Q.28: Age

Respondents were asked their age. The distribution tends to skew older: the largest portion, nearly a quarter, are 50 to 59, with 60 to 69 being the next largest proportion..

Table Q.28: What is your age?		
	%	#
Under 18	1%	1
18-19	0%	0
20-29	7%	6
30-39	11%	10
40-49	13%	11
50-59	24%	21
60-69	15%	13
70+	14%	12
I choose not to answer	15%	13

Figure Q.28



Q.29: Gender

Respondents were asked their gender. More than two-thirds identified themselves as male, while 21% declined to answer.

Table Q.29: What is your gender?

	%	#
Male	68%	59
Female	11%	10
I choose not to answer	21%	18
Total		87

Q.30: Race/Ethnicity

Respondents were asked to indicate their primary race/ethnicity from a list of options. Nearly three-quarters indicated White, while another quarter indicated that they chose not to answer. One respondent indicated Asian/Pacific Islander and one indicated Hispanic.

Table Q.30: Which race/ethnicity best describes you? (Please choose only one.)

	%	#
American Indian or Alaskan Native	0%	0
Asian / Pacific Islander	1%	1
Black or African American	0%	0
Hispanic	1%	1

White / Caucasian	72%	63
I choose not to answer	25%	22
Multiple ethnicity / Other (please specify)	0%	0
Total		87

Q.31: Homeownership

Respondents were asked if they own their own home. More than four-fifths do.

Table Q.31: Do you own your home?		
	%	#
Yes	83%	71
No	17%	15
Total		86

Q.32: Work location

Respondents were asked if they commute to work outside of Avon. The response is about evenly split, with slightly more working outside Avon than in it.

Table Q.32: Do you regularly commute to work outside of Avon?		
	%	#
Yes	52%	42
No	48%	39
Total		81

Q.33: Children

Respondents were asked if they have school-age children in their household. A bit more than a quarter responded affirmatively.

Table Q.33: Do you have school-age children in your household?		
	%	#
Yes	27%	23
No	73%	61
Total		84

Survey Conclusions

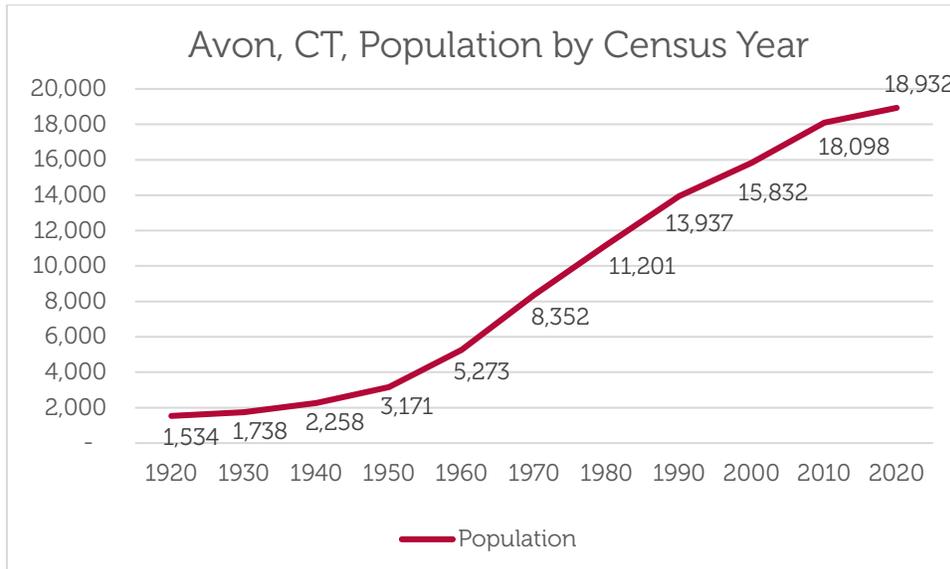
The survey results paint a mixed picture of conditions and attitudes among staff and volunteers. Responses indicate that a slight majority (50-60% of respondents) are typically satisfied with conditions and committed to continuing their volunteer roles,

while a bit more than a quarter of respondents are generally dissatisfied with the status quo, including current leadership. The remainder of respondents exhibit mixed or neutral takes on key issues.

There are not clear patterns of satisfaction or dissatisfaction that correspond with age, years of service to the department, or key roles in the department; rather, satisfaction and dissatisfaction appear to mostly cut across all these factors in similar proportion.

Town Demographic Overview

Over the last century, per Decennial Census numbers, Avon has grown by an order of magnitude, reaching 2020 with more than 12 times the population it had in 1920. While Avon saw its largest period of growth between the 1940s and the 1990s, it continues to grow, increasing by roughly 5% over the last decade.



The Census Bureau's American Community Survey (ACS), which is different than the Decennial Census, offers a more detailed breakdown of Avon's demographics. (Note: because the ACS uses a different estimation method than the Decennial Census, the total population number is different, a bit lower. While the Decennial Census count is presumed to be more accurate, the most current Decennial Census data does not yet offer the detailed breakouts by different category offered in the ACS data.)

2016-20 ACS Data	Town of Avon	Hartford County
Total population	18,302	892,153
Under 5 years	839	47,718
Under 18 years	4,415	187,444

2016-20 ACS Data	Town of Avon	Hartford County
18 years and over	13,887	704,709
65 years and over	3,897	152,812
75 years and over	1,957	68,251
Male	8,998	433,262
Female	9,304	458,891
Median age (years)	45.2	40.4
Housing Units	7,713	385,307
Owner-Occupied	84%	64%
Median Household Income	\$123,077	\$76,259
% in Poverty	4.4%	10.8%
% White	77%	62%

In comparison to Hartford County residents as a whole, Town of Avon residents are wealthier, with a median income that is 61% higher than the Hartford County median and a poverty rate less than half that of the whole county. A higher percentage of residents are White (more than three-quarters) and town residents are significantly more likely to own their own homes than county residents are.

There are also a higher percentage of both older and younger residents in Avon, in comparison to Hartford County: 24% of town residents are under 18, compared to 21% in Hartford County as a whole, while 21% of town residents are 65 or older, compared to 17% in Hartford County as a whole.

Future Development

Avon is heavily developed, with about 80 percent of buildable land already in use. However, there are some notable developments underway already and some others in the conceptual stage. It is possible that 800 to 1000 new residential units could be constructed in the five years. This could increase the Town's population by another 2,000 residents or about 12 percent. The Village Center project includes some of those residential units and several hundred thousand square feet of commercial space. All told, the development is planned to have 2 million square feet of buildings on Main Street. None of the buildings will be greater than four stories tall. Representatives of AVFD are invited to review site plans.

Appendix A: Detailed Member Activity

The following table displays counts and hours for each of the three main categories of activity (calls, training, and other activities) by individual staff member.

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
141	0	0	0	0	4	5.2
143	0	0	0	0	14	16.28
171	0	0	0	0	1	0
227	0	0	0	0	6	10.53
233	0	0	0	0	1	1.55
234	0	0	0	0	4	6.7
235	0	0	0	0	35	37.45
245	910	576.4	155	239.1	439	1115.33
254	0	0	2	4	34	87.25
260	494	1517.32	103	60	727	1415.11
308	864	1760.97	111	173.25	100	430.03
325	0	0	0	0	25	119.22
345	0	0	0	0	10	130
380	432	2141.83	186	454.55	526	1689.36
385	110	75.36	64	101	24	41.66
389	0	0	23	0	30	67
392	0	0	0	0	5	8.35
409	0	0	0	0	1	1.4
416	341	2282.56	60	433	652	1526.88
417	0	0	1	2	52	207.98
448	517	340.54	117	218.55	220	814.27
462	486	815.85	119	231	363	824.21
467	887	1882.63	163	325.33	503	1103.3
473	5	2.46	56	63.3	362	710.86
476	148	94.57	7	8	304	793.89
485	933	3081.43	126	169.5	289	350.57
488	0	0	0	0	30	25.35
491	0	0	0	0	3	8.61
495	592	357.25	131	275.25	402	1078.01
517	0	0	0	0	8	13.46
531	13	5.91	92	4	19	4.3
537	211	142.09	122	217.1	1023	1169.59
548	32	21.99	106	144	41	131.81

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
556	112	58.02	66	121	3431	6082.38
557	0	0	4	6	588	1047.47
558	464	833.53	115	178.75	185	524.56
567	678	1738.97	134	250.5	311	867.98
573	4	2.18	34	8	23	111.74
577	0	0	0	0	22	21.29
583	0	0	1	4	1045	2261.81
584	215	165.64	62	11.5	525	1270.62
587	146	103.73	118	151.1	66	200.22
588	12	3.77	106	49	19	11.77
591	0	0	0	0	12	0
592	483	1639.12	15	33.5	425	856.46
593	351	1574.56	91	258.8	703	1721.61
600	134	86.54	90	174	98	428.93
603	111	68.07	154	357.8	222	764
606	1	0.74	50	2	19	17.5
614	369	225.32	182	382.58	412	1039.68
615	353	2040.04	13	25.5	642	1582.56
620	0	0	0	0	1	0
622	175	116.42	86	115.5	184	538.59
624	0	0	5	0	27	42.57
628	0	0	0	0	411	887.82
630	0	0	1	1.5	959	1075.24
631	0	0	1	4	599	1083.43
635	648	384.64	122	210.7	196	478.6
637	0	0	0	0	377	821.93
638	357	231.03	120	180	488	1222.87
649	77	1378.17	45	50.5	9	13.27
652	0	0	0	0	574	1051.63
655	0	0	1	4	1539	3021.56
661	0	0	1	4	417	527.44
672	0	0	4	0	1	0
675	88	46.88	76	89.8	861	2925.33
677	36	17.67	111	147.5	34	53.81
679	166	94.39	97	348.5	389	1011.68
681	0	0	2	0	0	0
683	62	27.82	24	53.5	57	173.09
689	0	0	16	0	2	0

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
690	142	99.68	63	162.17	605	1475.38
691	112	54.45	113	137	81	260.23
692	0	0	0	0	1	0
694	0	0	0	0	1	0
696	480	849.87	155	389.15	342	852.65
698	820	1662.06	87	230.8	607	1939.47
701	18	24.54	42	9.5	58	112.17
702	0	0	1	3	127	228.35
704	1	0.29	1	1.5	12	0
706	3	4.43	0	0	16	12.5
709	79	44.67	41	64.5	50	210.3
715	10	8.56	76	71.5	12	3.67
716	383	261.36	145	259.22	178	562.94
719	0	0	0	0	747	1407.27
721	50	29.16	90	53	133	170.35
722	0	0	3	0	1	0
724	11	11.09	31	20.5	8	2
727	4	5.05	107	8.5	21	21.58
728	2	0.48	8	0	22	150
729	1	0.21	1	0	1	1.18
730	0	0	21	12	130	354.7
731	52	37.28	107	100.8	234	696.76
733	0	0	15	0	13	0
735	183	108.5	62	99.5	98	315.77
738	39	32.84	99	102	50	95.62
739	123	68.71	55	64	113	349.03
741	585	1696.5	198	379.25	272	857.87
743	13	6.73	43	46	51	189.94
744	106	611.6	100	122.5	90	388.71
746	13	5.08	24	2	19	7.77
747	562	2229.89	124	148.5	1613	3067.6
748	505	311.06	243	481.5	508	1157.2
749	0	0	13	3	25	59.32
750	51	34.01	109	115	112	303.59
751	106	65.66	82	66.5	45	66.76
753	0	0	0	0	114	216.8
754	438	257.57	117	175.1	151	614.76
755	3	0.95	28	39.5	28	105.02

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
756	8	3.72	72	41	35	54.38
757	131	83.89	80	101	126	448.31
758	235	149.64	127	172.6	182	428.17
759	5	2.12	7	4.5	17	11.58
760	36	26.23	17	32	22	51.38
761	17	9.58	60	56.5	71	335.76
762	2	0.56	25	29.5	87	395.35
763	0	0	21	10	4	4
764	0	0	3	2	867	1846.61
765	97	74.77	92	141.8	82	276.33
766	350	1475	110	103	82	78.98
767	0	0	1	2	583	984.97
768	213	141.54	62	68.3	113	189.91
769	229	158.07	148	283.5	259	534.55
770	245	703.99	122	176.45	309	542.84
771	167	845.41	104	165	174	434.32
772	713	991.27	134	287.4	216	477.88
773	0	0	0	0	29	33.75
774	0	0	6	10	257	418.36
775	0	0	2	2	95	147.11
776	14	8.47	61	15.5	16	8.75
777	99	54.96	62	248.75	97	222.2
778	670	925.32	122	296.55	408	985.74
779	10	6.49	31	9	6	2.33
780	0	0	0	0	15	11.58
781	0	0	0	0	8	0
782	414	780.74	84	200	93	212.74
783	0	0	1	4	183	260.56
784	23	14.1	71	86.5	22	46.37
785	0	0	0	0	62	96.83
786	0	0	9	10	3	1.33
787	240	164.55	72	159.5	81	214.34
788	69	37.24	74	195.5	22	26.51
789	1	0.13	38	12	5	0
790	167	104.66	69	176.5	20	54.44
791	17	9.39	35	21.5	35	142.75
792	433	240.09	54	92.85	47	190.01
793	4	1.4	37	38	14	33.33

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
794	274	742.63	64	195.5	48	140.48
795	228	127.29	45	104	50	91.59
796	63	42.8	21	33	13	24.58
797	38	15.96	7	7	11	18.99
798	122	66.2	13	26	102	344.9
799	1	0.28	4	2	0	0
800	91	70.44	7	6.5	84	317.32
806	21	13.82	13	26.5	55	219.17
88026	0	0	0	0	47	15.46
B0004	0	0	0	0	3	5.91
C66086	0	0	0	0	1	2
C66097	0	0	0	0	20	26
C66103	18	12.11	0	0	58	236.35
C66107	2	1.13	0	0	20	14
C66108	2	1.29	1	2	41	73.75
C66110	0	0	0	0	2	4
C66111	3	2.95	0	0	29	46
C66112	11	7.23	0	0	78	299.75
C66114	2	1.45	0	0	48	133.25
C66115	2	0.31	0	0	30	55.75
C66116	2	1.4	4	8	36	87.25
C66119	5	2.88	0	0	42	142.75
C66120	5	3.21	1	2	69	259.58
C66121	3	1.21	5	7.5	52	191.1
C66122	7	3.53	1	2	42	87.15
C66123	3	1.37	1	2	31	55.75
C66124	21	13.49	3	6	53	111.9
C66125	0	0	1	2	23	34
C66126	5	2.4	2	4	25	41.75
C66128	14	5.53	0	0	13	25.15
C66129	14	11.47	1	2	15	20.86
C66130	0	0	0	0	3	0
C66131	1	0.23	0	0	14	16.5
C66132	1	0.23	0	0	11	20
C66133	1	0.31	0	0	6	12
C66134	0	0	0	0	6	10
S005	0	0	0	0	7	17.5
Total	22,481.0	42,625.2	8,302.0	13,406.7	34,754.0	77,349.1

2018-2021 Totals Staff ID #	Responding to Calls		Training & Drills		All Other Activities	
	Count	Hours	Count	Hours	Count	Hours
Min	0	0	0	0	0	0
Max	933	3,081.43	243	481.5	3431	6,082.38
Average	122.2	231.7	45.1	72.9	188.9	420.4

Appendix B: Detailed Station Review



Station No. 1

Station No. 1 is located at 25 Darling Drive on the East side of Avon and serves as the primary headquarters of the Avon Volunteer Fire Department.

Headquarters Company was formed in 1973 and is located on the upper level of Company 1. Headquarters is the administrative company for the Avon Volunteer Fire Department. As such, it is the “heartbeat” of the Department.

Two Avon town employees – one full time and one part time – work at Headquarters.

Headquarters Company has many responsibilities, including keeping records of members’ attendance at fire calls, training sessions, and meetings; maintaining inventories of fire gear, equipment, and apparatus; documenting regulations and minutes of membership meetings and meetings of the Board of Directors; and compiling data to meet the Town of Avon, State of Connecticut, and Federal regulations.



The following apparatus are housed at Company 1:

Engine 7, Marine 1, Rescue 8, Truck 15, Truck 19, Light Tower, Truck 19, Truck 17, HazMat Trailer, and a ARGO Vehicle



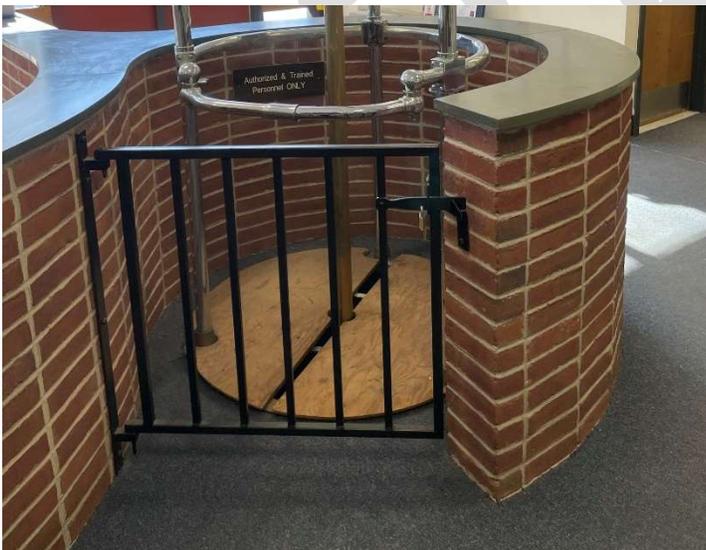


Station No. 1 Deficiencies:

1. The metal framed windows and doors are in need of paint. The glazing is and needs to be replaced along with the glass.



2. Carpet in general is worn and in need of replacement.





3. Aisle ways between bays in general are narrow and clogged with stored materials. The bay width is minimal at 13' 7" Wide x 67' Deep x 11' 8" Tall.



4. Exterior metal railings are rusted and in need of repair or replacement.
5. Exterior concrete stairs are deteriorated and not used frequently according to staff. Consider removal or replacement.



6. Concrete retaining wall finish is spalling and needs to be removed and reapplied. The stone cap needs to be repointed and the issue addressed. The spalling wall is a result of water coming through the joints of the stone cap.





7. Exterior concrete need to be cleaned and repainted. Building fenestration needs to be caulked and where required concrete repairs completed.



8. Asphalt needs milling / paving and striping. Additional lighting is needed at the parking lot.

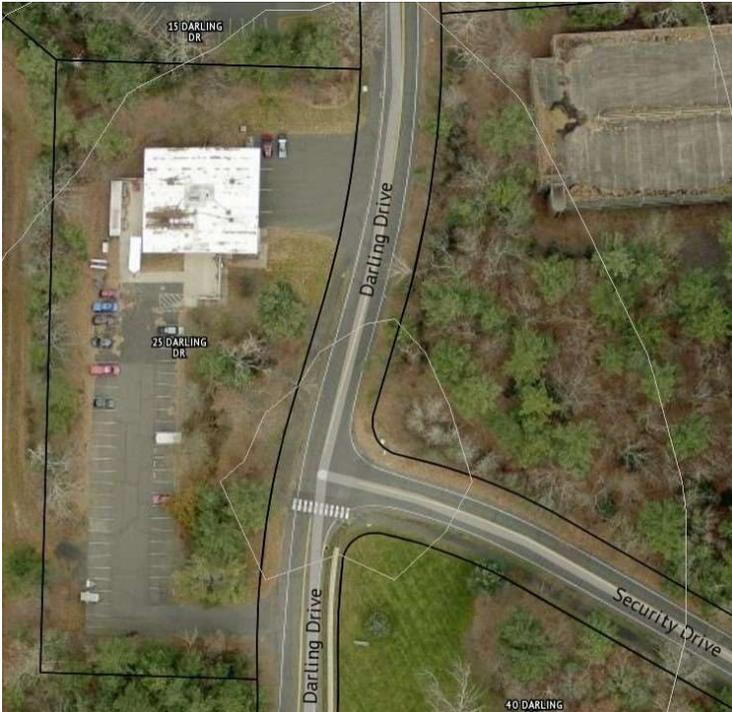




9. In general, there is a lack of storage space and or an overabundance of materials at the station. Electrical panels are blocked in some locations with stored materials.



10. Exiting the parking lot is unsafe due to the proximity of a blind curve in the road and the offset with Security Drive.



11. Roof condition?



12. Gear wash / drying is currently in one of the bays and the Gear Racks are along a wall in one of the bays which impedes use. SCBA Room is cluttered with stored materials.



13. Decontamination / shower and eyewash are needed.

Station No. 1 Facilities Summary:

The bays in Station No. 1 are minimum width but will function if materials stored in them are removed. This will require additional storage elsewhere. In general, the building needs maintenance and reorganization.

The entrance /exit drive should be aligned with Security Drive to minimize the potential for an accident.

Station No. 1 can serve the people of the Town of Avon CT. well into the future once it is maintained and the needed renovations / additions are provided to remediate the deficiencies.



Station No. 2

Station 2 is located at 106 Secret Lake Road and is the oldest station in the Avon Volunteer Fire Department. Until 1943 when it was incorporated into the AVFD, the station serviced only the Canton/Avon residents of the Secret Lake Association. Company 2's firehouse is the only one which is privately owned by the Avon Volunteer Fire Department Corporation.

Today, Company 2 is an Engine/Rescue company, which houses Engine 9 and Engine 10. It is in District 1, covering the northern and western parts of town.



Station No. 2 Deficiencies:

1. Paint lintels and jambs at OH doors.

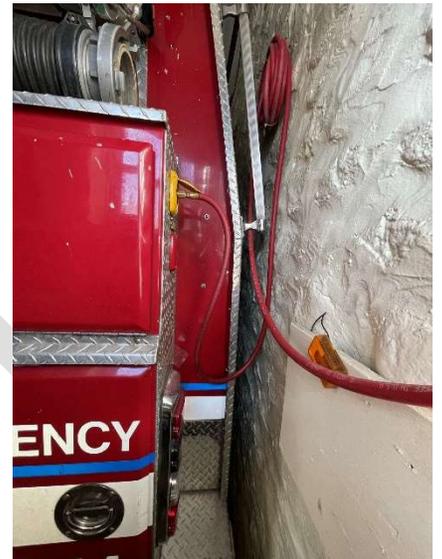


2. Repoint cobblestone retaining walls and structure walls as needed.





3. Bay widths are too narrow and too shallow and not adequate in height @ 10' 7" Wide x 32' Deep x 9' 7" Tall. The apparatus must be modified to fit in the bays by using custom mirrors and removing equipment in the front. It is not possible to walk around the equipment without the overhead doors opened. Aisle ways are too narrow for efficient operations.



4. unable to access Gear Room with apparatus in bays. The access door is directly behind Engine 13.





5. Offices are in areas with ceilings below 6'.



6. Gear washroom; SCBA room; Decon. shower / eye wash and Tool room is needed.

7. The site does not have room for expansion of the facility.





Station No. 2 Facilities Summary:

Station No. 2 structure and site are not pragmatically able to function as a fire department given the limitations. Apparatus must be moved in order access rooms in the building which slows response time given one of these rooms is the Gear room. The building has been maintained well and needs a minor amount of work to protect it from the elements.

Station No. 2 is not feasible to be maintained as a safe functional station. Consideration for repurposing or selling this station should be explored.

Station No. 3

In 1960, the Avon Volunteer Fire Department merged with the then independent West Avon Volunteer Fire Department and the Secret Lake Volunteer Fire Department. Four years later, the AVFD built Station No. 3, replacing the former West Avon Volunteer Fire Department one-bay station located across from the Avon High School main entrance.

Located at 490 West Avon Road, Station No. 3 is one of the most active companies in the Avon Volunteer Fire Department as it is both centrally located in town and it houses Ladder 12, Tanker 20, Engine 14, Truck 16.

Over the years Station 3 has played a large role in many of the town's larger emergency incidents. This company and its specialized apparatus not only provide a valuable service to the Town of Avon, but are often called upon to provide mutual aid assistance to surrounding towns and are part of a specialized multi-town tanker task force.



Station No. 3 Deficiencies:

1. Station No. 3 parking area shares an entrance with the High School. Traffic congestion is frequently an issue potentially delaying response time.



2. Bay widths are too narrow and too shallow and not adequate in height @ 11'-11" Wide x 48' Deep x 11'-8" Tall. Unable to walk around the Ladder Truck when it is parked in the bay. Mirrors have been shortened to reduce the width of the apparatus which results in reduced effectiveness of the mirrors.





3. Clogged narrow aisle ways between bays with equipment stored between apparatus.



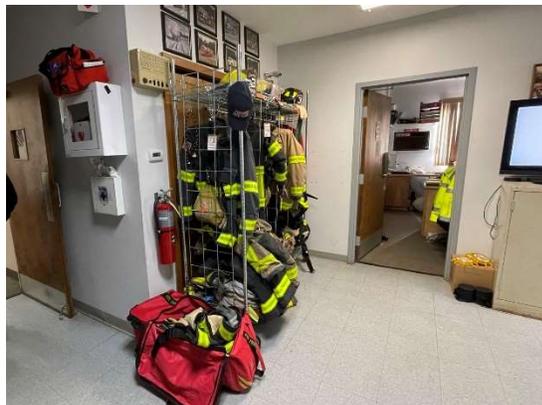
4. Gear washroom is inadequate, and it is not functional as it is condensed behind the Apparatus. Drying equipment is located directly in front of the wash machine.



5. Decontamination shower and eyewash are needed.



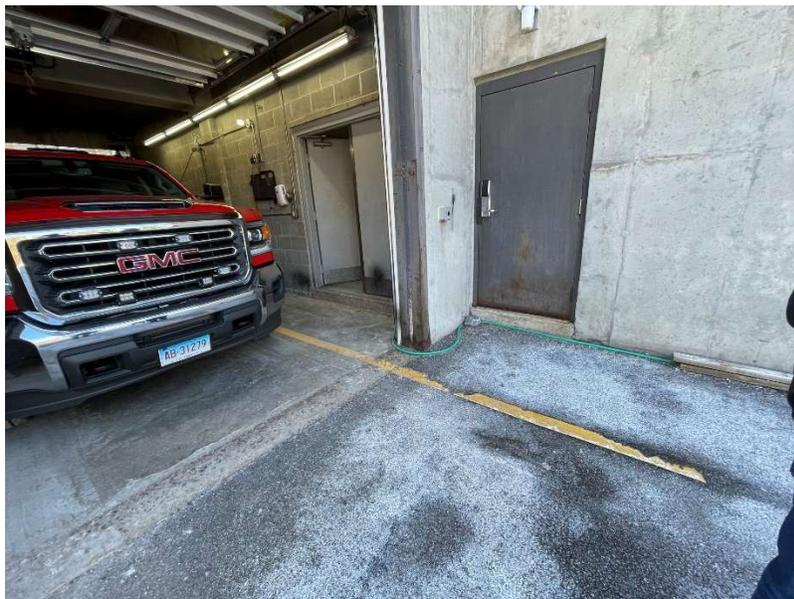
6. Gear room is in the corridor. This should ideally be located adjacent to the bays and laundry area.



7. The Training room / Social Hall carpet is worn and old ceiling leaks are in need of repair.



8. Exterior doors and metal jambs need to be prepped, primed and painted.



Station No. 3 Facilities Summary:

The bays in Station No.3 are minimum width but will function if materials stored in them are removed. This will require additional storage elsewhere. In general, the building needs maintenance and reorganization. The bay depths and height as well as the bay door widths are not accommodating the apparatus that is garaged here. It is difficult to move around the apparatus and utilize laundry areas, storage areas and access to gear is inefficient. The site access at times is congested due to the location and shared driveway with the school.

Station No. 3 can continue to serve the people of the Town of Avon once it is maintained, and the needed renovations / additions are provided to remediate the deficiencies. However, the station has outlived its usefulness and despite additions and repairs its location on the site, proximity to the road, bay widths, depths and heights will continue to limit the proper effective functionality of Station No. 3 compared to a newer adequately sized facility. Eventually a more cost effective solution may be to relocate and construct a new Station No. 3 across the road at the available site. **Need more information from CGR to finish this summary.**



Station 4: is located at 365 Huckleberry Hill Road and operates primarily as an Engine/Rescue company with specialty equipment and training for brush fires and water rescue, Station 4 serves the South and West ends of the Town of Avon and is home to the Engine 11, Engine 13, and Marine 2.



Station No. 4 Deficiencies:

1. Exterior mechanical room doors need to be replaced





2. Mill and pave asphalt areas.



3. There is damaged brick in several locations that needs to be replaced / repaired / repointed.



4. Decontamination shower and eyewash needed.
5. Bay dimensions are minimum at 11'-11" Wide x 36' Deep x 10'-0" Tall. However, the apparatus that is stored here fits and is accessible.

Station No. 4 Facilities Summary:

The bays in Station No.4 are minimum width but are functioning. The facility has undergone recent renovations that have improved its appearance and function.

Station No. 4 can continue to effectively serve the people of the Town of Avon. There are items that need to be completed that are part of normal maintenance to any Station.



General Statements:

1. Fire Service today is managed and regulated like any other government or private institution. To meet the needs of the community within the mandates of the State and Federal Government many contributors work together to provide efficient, safe, and economical fire protection and document retention. All these contributors require secured access, control/dispatch room, meeting space, training space and future staff and records retention space to perform their responsibilities efficiently and legally. In general, the ever-expanding storage requirements of equipment, documents and people are not being met.
2. Since the construction of the Stations, management and business functions have expanded through government mandate. The Fire Department of 2022 does not fit and does not function safely and efficiently in dated and minimally designed structures.
3. Heating plants are an opportunity for improvement in efficiency.
4. Consider what can be done to minimize file storage through scanning and digital storage of these materials.
5. Consider what functions can be centralized to avoid redundancy of spaces and equipment such as SCBA, Training Spaces, Office Space, and social halls.

DRAFT

Appendix C: Full Calls for Service Grid

INCIDENT TYPE					4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)
	2018	2019	2020	2021							
Smoke detector activation, no fire - unintentional	54	62	50	57	223	56	6	16	10	29	9.21
Alarm system activation, no fire - unintentional	37	38	63	52	190	48	5	14	11	37	7.89
Power line down	26	29	41	17	113	28	4	15	12	90	4.61
Smoke detector activation due to malfunction	33	28	11	27	99	25	7	15	17	44	4.11
Motor vehicle accident with no injuries.	27	25	22	22	96	24	5	13	16	67	3.95
Lock-out	24	25	21	20	90	22	6	15	14	32	3.62
Motor vehicle accident with injurie	19	21	27	19	86	22	5	13	29	81	3.62
Vehicle accident, general cleanup	38	23	14	14	89	22	5	15	21	73	3.62
Carbon monoxide detector activation, no CO	18	20	13	23	74	18	9	17	21	42	2.96
Gas leak (natural gas or LPG)	18	14	14	28	74	18	8	15	26	91	2.96
Detector activation, no fire - unintentional	11	16	14	23	64	16	6	16	12	43	2.63
Good intent call, other	8	26	16	15	65	16	5	15	13	36	2.63
Alarm system sounded due to malfunction	8	15	23	11	57	14	6	19	14	44	2.3
CO detector activation due to malfunction	11	9	22	15	57	14	9	18	21	37	2.3
Carbon monoxide incident	9	9	19	19	56	14	10	19	29	77	2.3
Smoke scare, odor of smoke	12	21	13	10	56	14	6	14	16	58	2.3
HazMat release investigation w/no HazMat	14	15	8	14	51	13	7	17	18	47	2.14

INCIDENT TYPE						4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)
	2018	2019	2020	2021								
False alarm or false call, other	11	12	17	8	48	12	5	15	10	36	1.97	
System malfunction, other	11	18	5	4	38	10	5	14	16	71	1.64	
Cover assignment, standby, moveup	7	14	7	9	37	9	6	27	21	121	1.48	
Unintentional transmission of alarm, other	15	11	5	6	37	9	4	14	10	36	1.48	
Accident, potential accident, other	16	15	2	1	34	8	4	13	17	65	1.32	
Arcing, shorted electrical equipment	6	8	11	6	31	8	6	16	17	59	1.32	
Brush or brush-and-grass mixture fire	1	9	13	11	34	8	4	14	19	67	1.32	
Smoke or odor removal	11	4	8	8	31	8	7	15	27	52	1.32	
Service Call, other	10	7	9	3	29	7	1	14	9	45	1.15	
Unauthorized burning	5	4	12	6	27	7	4	13	13	48	1.15	
Cooking fire, confined to container	8	5	8	4	25	6	5	13	21	69	0.99	
Hazardous condition, other	8	9	4	1	22	6	4	13	18	61	0.99	
Medical assist, assist EMS crew	2	3	8	9	22	6	9	17	20	38	0.99	
Public service	6	10	5	5	26	6	0	17	16	75	0.99	
Water evacuation	7	5	2	11	25	6	8	18	28	62	0.99	
Electrical wiring/equipment problem, other	8	5	1	5	19	5	3	12	9	65	0.82	
No incident found on arrival at dispatch address	4	4	3	9	20	5	4	11	7	24	0.82	
Sprinkler activation, no fire - unintentional	4	4	8	4	20	5	5	16	17	62	0.82	
Water or steam leak	5	7	3	5	20	5	5	20	26	47	0.82	
Water problem, other	8	6	2	3	19	5	6	13	18	51	0.82	
Wind storm, tornado/hurricane assessment	3	2	14	2	21	5	5	15	10	50	0.82	
Assist police or other governmental agency	7	3	4	3	17	4	1	16	19	127	0.66	
Building fire	2	3	5	4	14	4	10	17	47	110	0.66	

INCIDENT TYPE						4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)
	2018	2019	2020	2021								
Excessive heat, scorch burns with no ignitio	4	1	7	4	16	4	6	12	19	40	0.66	
Oil or other combustible liquid spill	4	5	4	1	14	4	6	22	18	78	0.66	
Severe weather or natural disaster, other	1	1	1	12	15	4	4	24	15	38	0.66	
Authorized controlled burning	2	4	3	4	13	3	5	13	9	38	0.49	
Fire, other	6	4	2	0	12	3	9	13	18	41	0.49	
Gasoline or other flammable liquid spill	5	4	3	1	13	3	6	12	19	58	0.49	
Removal of victim(s) from stalled elevator	1	6	3	1	11	3	5	11	11	30	0.49	
Animal rescue	4	2	0	1	7	2	3	32	10	45	0.33	
Chimney or flue fire, confined to chimney or flue	0	0	6	1	7	2	6	14	35	62	0.33	
EMS call, excluding vehicle accident with injury	1	1	3	4	9	2	3	12	20	55	0.33	
Extrication of victim(s) from vehicle	1	1	2	2	6	2	9	11	48	75	0.33	
Fuel burner/boiler malfunction, fire confined	1	3	3	1	8	2	8	14	29	89	0.33	
Grass fire	3	0	2	1	6	2	6	10	17	35	0.33	
Lightning strike (no fire)	6	0	1	1	8	2	6	14	17	62	0.33	
Lock-in (if lock out , use 511)	4	0	1	5	10	2	2	12	9	38	0.33	
Outside equipment fire	1	2	3	0	6	2	7	11	15	50	0.33	
Outside rubbish, trash or waste fire	3	3	0	0	6	2	5	11	13	32	0.33	
Overheated motor	3	2	3	1	9	2	10	14	27	82	0.33	
Passenger vehicle fire	2	3	0	2	7	2	7	14	45	92	0.33	
Person in distress, other	3	3	1	0	7	2	4	9	13	26	0.33	
Sprinkler activation due to malfunctio	2	1	0	4	7	2	5	13	21	91	0.33	
Steam, vapor, fog or dust thought to be smoke	3	1	0	5	9	2	6	11	14	34	0.33	
Building or structure weakened or collapsed	1	0	1	3	5	1	7	13	31	83	0.16	

INCIDENT TYPE						4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)
	2018	2019	2020	2021								
Chemical spill or leak	1	3	1	0	5	1	2	20	17	145	0.16	
Combustible/flammable gas/liquid condition, other	1	0	2	1	4	1	10	17	21	52	0.16	
Cultivated trees or nursery stock fire	3	0	0	0	3	1	3	6	6	20	0.16	
Dispatched & canceled en route	1	0	1	1	3	1	12	17	25	54	0.16	
Dumpster or other outside trash receptacle fire	1	0	1	2	4	1	8	10	28	37	0.16	
Heat detector activation due to malfunction	0	1	2	1	4	1	12	14	26	71	0.16	
Malicious, mischievous false call, other	1	1	0	3	5	1	3	9	12	38	0.16	
Natural vegetation fire, other	2	0	1	1	4	1	6	9	13	27	0.16	
Public service assistance, other	3	0	0	1	4	1	10	23	18	63	0.16	
Refrigeration leak	0	2	1	0	3	1	9	13	37	55	0.16	
Rescue, EMS incident, other	1	1	1	0	3	1	5	8	30	39	0.16	
Search for person in water	1	1	0	1	3	1	3	15	48	116	0.16	
Search for person on land	1	1	1	1	4	1	5	32	51	91	0.16	
Steam, other gas mistaken for smoke, other	3	0	0	0	3	1	5	12	9	38	0.16	
Water & ice-related rescue, other	0	1	1	1	3	1	11	18	17	51	0.16	
Animal problem	0	0	2	0	2	0	6	12	25	61	0	
Assist invalid	0	1	0	1	2	0	4	14	31	33	0	
Breakdown of light ballast	0	1	0	1	2	0	8	8	30	44	0	
Camper or recreational vehicle (RV) fire	0	1	0	0	1	0	17	17	42	42	0	
Central station, malicious false alar	1	0	0	0	1	0	6	6	14	14	0	
Chemical hazard (no spill or leak)	0	0	1	1	2	0	5	9	14	25	0	
Citizen complaint	2	0	0	0	2	0	7	9	20	22	0	

INCIDENT TYPE						4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)
	2018	2019	2020	2021								
Defective elevator, no occupant	0	1	0	0	1	0	11	11	19	19	0	
EMS call, party transported by non-fire agency	1	0	0	0	1	0	7	7	17	17	0	
Explosion (no fire), other	1	0	0	0	1	0	19	19	54	54	0	
Extinguishing system activation	2	0	0	0	2	0	5	7	14	15	0	
Extinguishing system activation due to malfunction	0	0	0	1	1	0	9	9	19	19	0	
Extrication of victim(s) from building/structure	0	1	1	0	2	0	7	10	17	21	0	
Extrication, rescue, other	1	0	0	0	1	0	3	3	10	10	0	
Flood assessment	1	1	0	0	2	0	12	17	37	38	0	
Forest, woods or wildland fire	0	0	1	1	2	0	9	10	45	77	0	
Heat from short circuit (wiring), defective/worn	0	1	0	0	1	0	18	18	31	31	0	
High-angle rescue	0	1	0	0	1	0	1	1	89	89	0	
Ice rescue	0	1	1	0	2	0	12	12	41	73	0	
Mobile property (vehicle) fire, other	1	0	0	1	2	0	11	15	45	60	0	
Motor vehicle/pedestrian accident (MV Ped)	0	0	1	0	1	0	9	9	59	59	0	
Municipal alarm system, malicious false alarm	0	0	0	1	1	0	14	14	14	14	0	
Off-road vehicle or heavy equipment fire	1	0	0	1	2	0	10	13	27	35	0	
Outside gas or vapor combustion explosion	0	0	1	0	1	0	7	7	96	96	0	
Outside rubbish fire, other	2	0	0	0	2	0	2	8	6	11	0	
Outside stationary compactor/compacted trash fire	1	0	0	0	1	0	12	12	60	60	0	
Outside storage fire	0	0	0	1	1	0	12	12	26	26	0	

INCIDENT TYPE												
	2018	2019	2020	2021	4 year Total	Avg	Response Time 50th Percentile	Response Time 90th Percentile	Task Time 50th Percentile	Task Time 90th Percentile	Avg/Total (percent)	
Overpressure rupture of air or gas pipe/pipeline	1	0	0	0	1	0	8	8	74	74	0	
Police matter	1	0	0	1	2	0	3	10	8	30	0	
Special outside fire, other	0	0	1	1	2	0	13	15	29	42	0	
Special type of incident, other	1	0	0	0	1	0	0	0	0	0	0	
Swift water rescue	0	1	0	0	1	0	6	6	65	65	0	
Swimming/recreational water areas rescue	1	0	0	0	1	0	5	5	147	147	0	
Toxic condition, other	1	0	1	0	2	0	6	14	29	50	0	
Trash or rubbish fire, contained	0	0	0	1	1	0	16	16	69	69	0	
Trench/below-grade rescue	0	1	0	0	1	0	9	9	33	33	0	
Wrong location	0	2	0	0	2	0	5	5	18	22	0	
Total	631	635	618	592	2476	608						

Appendix D: Drawings for Potential New Stations



1" = 40'-0" N



PLAN LAYOUT (SITE)
DESIGN SCOPE: FIRE DEPARTMENT



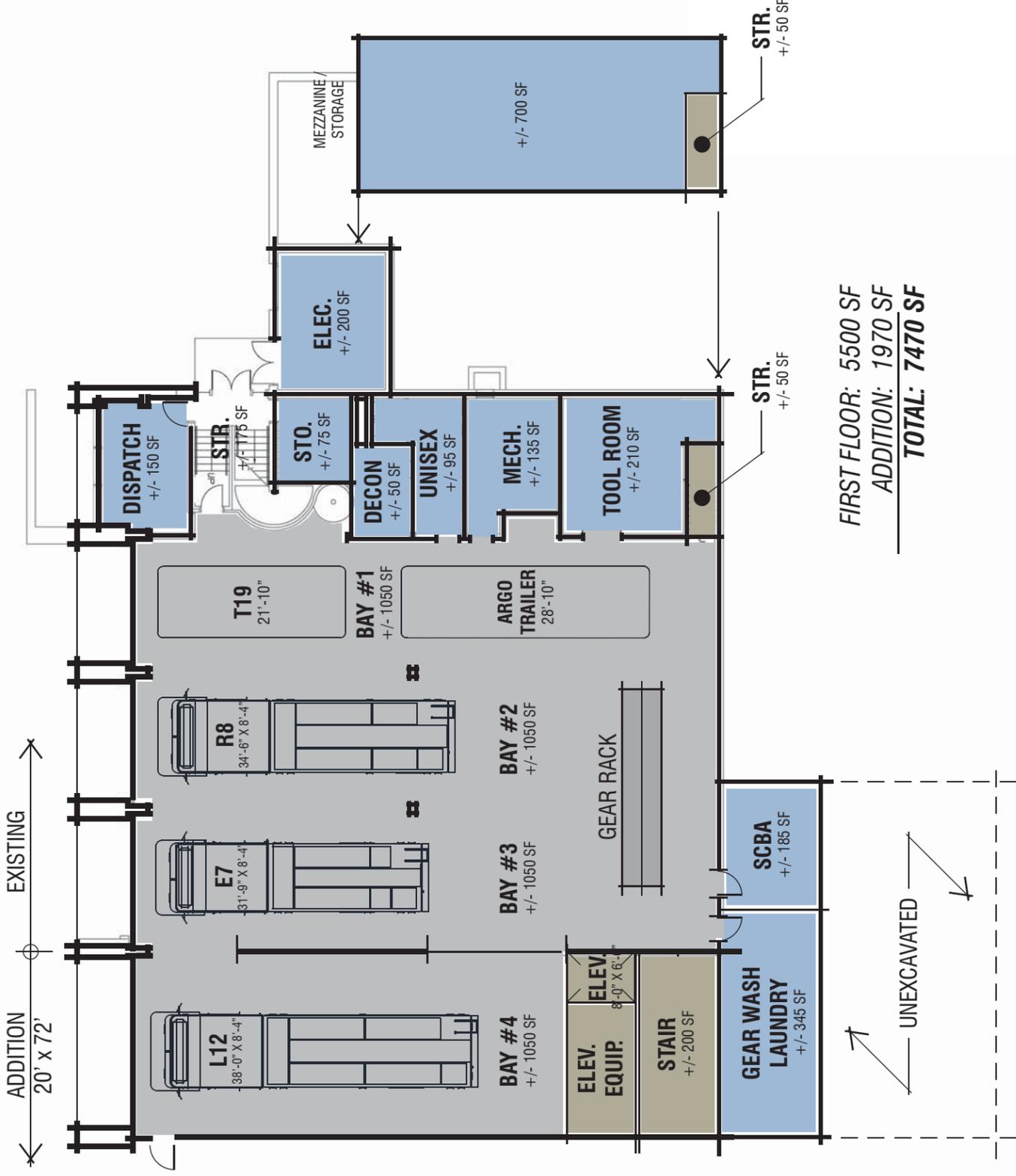
STATION 1

TOWN OF AVON FIRE DEPARTMENT

MAY 2022

25 DARLING DRIVE
AVON, CT 06001





STATION 1

PLAN LAYOUT

DESIGN SCOPE: FIRE DEPARTMENT

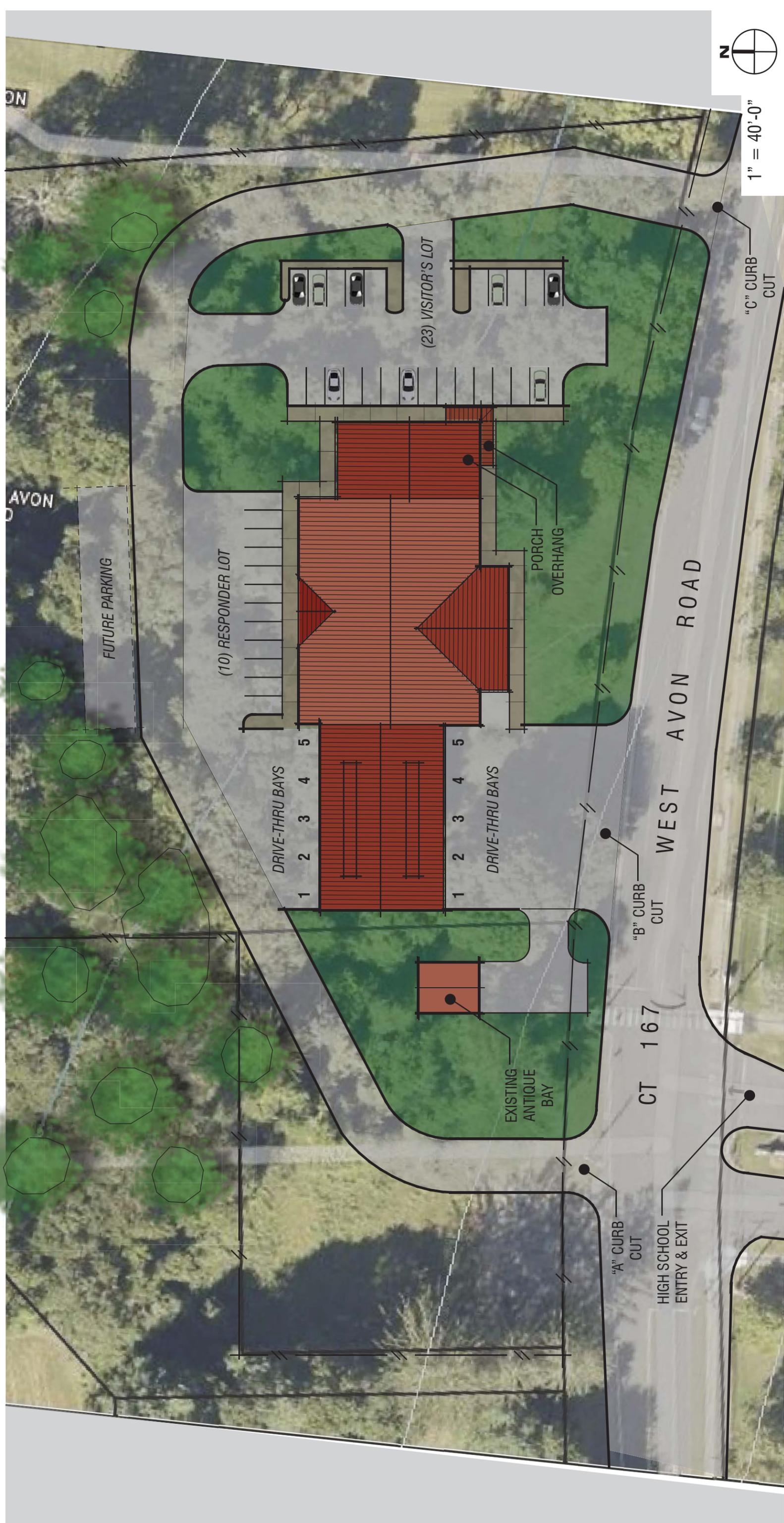
25 DARLING DRIVE
 AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT

MAY 2022



LaBella
 Powered by partnership.



PROPOSED STATION 3

503 WEST AVON ROAD
 AVON, CT 06001

TOWN OF AVON FIRE DEPARTMENT

JUNE 2022

PLAN LAYOUT (SITE)
 DESIGN SCOPE: FIRE DEPARTMENT





PROPOSED STATION 3



1/16" = 1'-0"



PLAN LAYOUT

LEGEND

ROOM	ROOM NAME	SQUARE FOOTAGE
①	- APPARATUS BAYS	4325 SF
②	- GEAR WASH	630 SF
③	- MECHANICAL	300 SF
④	- ELEC. / DATA	195 SF
⑤	- KITCHEN	535 SF
⑥	- SCBA	280 SF
⑦	- DECON.	80 SF
⑧	- TOOL ROOM	330 SF
⑨	- CONTROL ROOM	200 SF
⑩	- MEN'S	630 SF (TOT.)
⑪	- WOMEN'S	630 SF (TOT.)
⑫	- STOR. / CUSTODIAL	190 SF (TOT.)
⑬	- VEST.	130 SF (TOT.)
⑭	- CORR.	1350 SF
⑮	- TRAINING / SOCIAL	2480 SF
⑯	- CONFERENCE	180 SF
⑰	- STORAGE	180 SF
⑱	- OFFICE	480 SF (TOT.)
⑲	- DORM	320 SF (TOT.)
⑳	- KITCHEN	300 SF
㉑	- DAY ROOM	600 SF
㉒	- PORCH	300 SF

GROSS SQUARE FOOTAGE: +/- 14,645 SF



503 WEST AVON ROAD TOWN OF AVON FIRE DEPARTMENT

AVON, CT 06001

JUNE 2022

DESIGN SCOPE: FIRE DEPARTMENT



Additions & Renovations Station No. 1

Probable Project COST BUDGET

City of Avon CT.

LaBella Associates Project No.: 2220895

Date: June 2022

Item	Description:	Qty.	Unit	Cost/Unit	Total
Renovation and Expansion of Fire Station					
001	Site Preparation, Civil Utility connections: Sewer / Gas / Water	0	EA	80,000	\$ -
002	Selected Building Demolition and Selected Site Work Demolition	1	EA	20,000	\$ 20,000
003	New Construction - Sitework, Associated Parking, Drives	10,000	SF	9	\$ 90,000
004	New Construction - First Floor	1,970	SF	390	\$ 768,300
005	New Construction - Second Floor	2,810	SF	370	\$ 1,039,700
006	Horizontal Corridors	0	SF	300	\$ -
007	Vertical - Elevator and Stair Towers	0	SF	410	\$ -
008	Alterations: Carpet, Paint, Windows, Doors, ADA,	10,100		170	\$ 1,717,000
009	Site Cost by owner / Emergency Traffic light by owner				\$ -

Sub-Total **\$ 3,635,000**

Contaminated Soils Contingency (yet to be determined, allowance)		\$ 150,000
Pre-Bid Design Contingency - for everything we haven't thought of yet	5.0%	\$ 181,750
Post Bid Construction Contingency - for unforeseen conditions during construction	5.0%	\$ 198,338
Bid Escalation Contingency - (12) Months	7.0%	\$ 291,556
Construction Manager	4.0%	\$ 178,266
Electrical Utility Connections / transformer		\$ -

Construction Sub-total **\$ 4,635,000**

FURNITURE, FIXTURES & EQUIPMENT ALLOWANCES

New Generator	\$ 120,000
Radio Tower (not required, provide whip mast on building)	\$ -
Furniture (allowance)	\$ 50,000
Equipment - Gear Wash / Gear Drying / Gear Racks	\$ 65,000
Radio equipment / reconnection / rerouting cost	\$ -
Phones	\$ -
Network / Server / Router / Data Racks	\$ -
Security Cameras / Fobs / Security System	\$ 45,000
Audio visual equipment / TVs	\$ 5,000
Temporary relocation costs by Owner	\$ -
Fitness equipment	\$ -
Fire extinguishers - cabinets included in "Construction \$"	\$ -
Computers, Copiers & printers by Owner	\$ -
Kitchen equipment	\$ -

Furniture, Fixtures and Equipment Sub-total **\$ 285,000**

ALLOWANCES & CONSULTANT FEES

Credit Rating - Bond Consultant to determine necessity	\$ -
Municipal Bond Consultant - Owner to validate allowance	\$ 10,000
Municipal Finance Counsel Fees - Owner to validate allowance	\$ 40,000
Fire Department's Counsel Fees - Owner to validate allowance	\$ 10,000
Env. Assessment & Subsurface Investigation	\$ 12,000
Contaminated Site Soil clean-up (non-anticipated)	\$ -
Asbestos / Lead Survey, Testing, Report, Design & Monitoring	\$ -
Planning Design Services - LaBella Associates, DPC/Grants	\$ -
Topographical Survey	\$ 11,000
Builder's Risk Insurance	\$ 5,000
Construction Testing and Special Inspections	\$ 30,000
Arch. & Eng. Design Fees (as % of Sub-Total + Pre-Bid Cont.) *Estimate	7.50% \$ 334,248
Incidental Reserve	\$ 15,000
Reimbursable Expenses including Mileage, Postage, Printing of Bid Documents	\$ 14,000

Allowances & Consultant Fees Sub-total **\$ 481,000**

Preliminary Project Total **\$ 5,401,000**

Construction of a New 3 Bay Station No. 3

Probable Project COST BUDGET

City of Avon CT.

LaBella Associates Project No.: 2220895

Date: June 2022

Item	Description:	Qty.	Unit	Cost/Unit	Total
Construction of a New Fire Station					
001	Site Preparation, Civil Utility connections: Sewer / Gas / Water	1	EA	80,000	\$ 80,000
002	Selected Building Demolition and Selected Site Work Demolition	1	EA	35,000	\$ 35,000
003	New Construction - Sitework, Associated Parking, Drives	94,000	SF	9	\$ 846,000
004	New Construction - First Floor	5,893	SF	390	\$ 2,298,270
005	New Construction - Second Floor	0	SF	370	\$ -
006	Horizontal Corridors	0	SF	300	\$ -
007	Vertical - Elevator and Stair Towers	0	SF	410	\$ -
008	Restore existing antique bay	1		40,000	\$ 40,000
009	Site Cost by owner / Emergency Traffic light by owner				\$ -

Sub-Total **\$ 3,299,270**

Contaminated Soils Contingency (yet to be determined, allowance)		\$ 150,000
Pre-Bid Design Contingency - for everything we haven't thought of yet	5.0%	\$ 164,964
Post Bid Construction Contingency - for unforeseen conditions during construction	5.0%	\$ 180,712
Bid Escalation Contingency - (12) Months	7.0%	\$ 265,646
Construction Manager	4.0%	\$ 162,424
Electrical Utility Connections / transformer		\$ 35,000

Construction Sub-total **\$ 4,258,000**

FURNITURE, FIXTURES & EQUIPMENT ALLOWANCES

New Generator	\$ 120,000
Radio Tower (not required, provide whip mast on building)	\$ -
Furniture (allowance)	\$ 30,000
Equipment - Gear Wash / Gear Drying / Gear Racks	\$ 65,000
Radio equipment / reconnection / rerouting cost	\$ 12,000
Phones	\$ 5,000
Network / Server / Router / Data Racks	\$ 35,000
Security Cameras / Fobs / Security System	\$ 45,000
Audio visual equipment / TVs	\$ 5,000
Temporary relocation costs by Owner	\$ -
Fitness equipment	\$ 18,000
Fire extinguishers - cabinets included in "Construction \$"	\$ 1,000
Computers, Copiers & printers by Owner	\$ -
Kitchen equipment	\$ 2,000

Furniture, Fixtures and Equipment Sub-total **\$ 338,000**

ALLOWANCES & CONSULTANT FEES

Credit Rating - Bond Consultant to determine necessity	\$ -
Municipal Bond Consultant - Owner to validate allowance	\$ 10,000
Municipal Finance Counsel Fees - Owner to validate allowance	\$ 40,000
Fire Department's Counsel Fees - Owner to validate allowance	\$ 10,000
Env. Assessment & Subsurface Investigation	\$ 12,000
Contaminated Site Soil clean-up (non-anticipated)	\$ -
Asbestos / Lead Survey, Testing, Report, Design & Monitoring	\$ -
Planning Design Services - LaBella Associates, DPC/Grants	\$ -
Topographical Survey	\$ 11,000
Builder's Risk Insurance	\$ 5,000
Construction Testing and Special Inspections	\$ 30,000
Arch. & Eng. Design Fees (as % of Sub-Total + Pre-Bid Cont.) *Estimate	7.50% \$ 304,544
Incidental Reserve	\$ 15,000
Reimbursable Expenses including Mileage, Postage, Printing of Bid Documents	\$ 14,000

Allowances & Consultant Fees Sub-total **\$ 452,000**

Preliminary Project Total **\$ 5,048,000**

Renovations Station No. 1

Probable Project COST BUDGET

City of Avon CT.

LaBella Associates Project No.: 2220895

Date: June 2022

Item	Description:	Qty.	Unit	Cost/Unit	Total
Renovations Only of Fire Station					
001	Site Preparation, Civil Utility connections: Sewer / Gas / Water	0	EA	80,000	\$ -
002	Selected Building Demolition and Selected Site Work Demolition	1	EA	20,000	\$ 20,000
003	New Construction - Sitework, Associated Parking, Drives	10,000	SF	9	\$ 90,000
004	New Construction - First Floor	0	SF	390	\$ -
005	New Construction - Second Floor	0	SF	370	\$ -
006	Horizontal Corridors	0	SF	300	\$ -
007	Vertical - Elevator and Stair Towers	0	SF	410	\$ -
008	Alterations: Carpet, Paint, Windows, Doors, ADA,	10,100		170	\$ 1,717,000
009	Site Cost by owner / Emergency Traffic light by owner				\$ -

Sub-Total **\$ 1,827,000**

Contaminated Soils Contingency (yet to be determined, allowance)		\$ 150,000
Pre-Bid Design Contingency - for everything we haven't thought of yet	5.0%	\$ 91,350
Post Bid Construction Contingency - for unforeseen conditions during construction	5.0%	\$ 103,418
Bid Escalation Contingency - (12) Months	7.0%	\$ 152,024
Construction Manager	4.0%	\$ 92,952
Electrical Utility Connections / transformer		\$ -

Construction Sub-total **\$ 2,417,000**

FURNITURE, FIXTURES & EQUIPMENT ALLOWANCES

New Generator	\$ 120,000
Radio Tower (not required, provide whip mast on building)	\$ -
Furniture (allowance)	\$ 50,000
Equipment - Gear Wash / Gear Drying / Gear Racks	\$ 65,000
Radio equipment / reconnection / rerouting cost	\$ -
Phones	\$ -
Network / Server / Router / Data Racks	\$ -
Security Cameras / Fobs / Security System	\$ 45,000
Audio visual equipment / TVs	\$ 5,000
Temporary relocation costs by Owner	\$ -
Fitness equipment	\$ -
Fire extinguishers - cabinets included in "Construction \$"	\$ -
Computers, Copiers & printers by Owner	\$ -
Kitchen equipment	\$ -

Furniture, Fixtures and Equipment Sub-total **\$ 285,000**

ALLOWANCES & CONSULTANT FEES

Credit Rating - Bond Consultant to determine necessity	\$ -
Municipal Bond Consultant - Owner to validate allowance	\$ 10,000
Municipal Finance Counsel Fees - Owner to validate allowance	\$ 40,000
Fire Department's Counsel Fees - Owner to validate allowance	\$ 10,000
Env. Assessment & Subsurface Investigation	\$ 12,000
Contaminated Site Soil clean-up (non-anticipated)	\$ -
Asbestos / Lead Survey, Testing, Report, Design & Monitoring	\$ -
Planning Design Services - LaBella Associates, DPC/Grants	\$ -
Topographical Survey	\$ 11,000
Builder's Risk Insurance	\$ 5,000
Construction Testing and Special Inspections	\$ 4,000
Arch. & Eng. Design Fees (as % of Sub-Total + Pre-Bid Cont.) *Estimate	7.50% \$ 174,284
Incidental Reserve	\$ 15,000
Reimbursable Expenses including Mileage, Postage, Printing of Bid Documents	\$ 14,000

Allowances & Consultant Fees Sub-total **\$ 295,000**

Preliminary Project Total **\$ 2,997,000**

Construction of a New HQ Station No. 3
Probable Project COST BUDGET

City of Avon CT.

LaBella Associates Project No.: 2220895

Date: June 2022

Item	Description:	Qty.	Unit	Cost/Unit	Total
Construction of a "Headquarters" Station 3					
001	Site Preparation, Civil Utility connections: Sewer / Gas / Water	1	EA	80,000	\$ 80,000
002	Selected Building Demolition and Selected Site Work Demolition	1	EA	35,000	\$ 35,000
003	New Construction - Sitework, Associated Parking, Drives	94,000	SF	9	\$ 846,000
004	New Construction - First Floor	14,645	SF	390	\$ 5,711,550
005	New Construction - Second Floor	0	SF	370	\$ -
006	Horizontal Corridors	0	SF	300	\$ -
007	Vertical - Elevator and Stair Towers	0	SF	410	\$ -
008	Restore existing antique bay	1		40,000	\$ 40,000
009	Site Cost by owner / Emergency Traffic light by owner				\$ -

Sub-Total	\$ 6,712,550
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Contaminated Soils Contingency (yet to be determined, allowance)	\$ 150,000
Pre-Bid Design Contingency - for everything we haven't thought of yet	5.0% \$ 335,628
Post Bid Construction Contingency - for unforeseen conditions during construction	5.0% \$ 359,909
Bid Escalation Contingency - (12) Months	7.0% \$ 529,066
Construction Manager	4.0% \$ 323,486
Electrical Utility Connections / transformer	\$ 35,000

Construction Sub-total	\$ 8,446,000
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FURNITURE, FIXTURES & EQUIPMENT ALLOWANCES

New Generator	\$ 120,000
Radio Tower (not required, provide whip mast on building)	\$ -
Furniture (allowance)	\$ 50,000
Equipment - Gear Wash / Gear Drying / Gear Racks	\$ 65,000
Radio equipment / reconnection / rerouting cost	\$ 12,000
Phones	\$ 5,000
Network / Server / Router / Data Racks	\$ 35,000
Security Cameras / Fobs / Security System	\$ 45,000
Audio visual equipment / TVs	\$ 5,000
Temporary relocation costs by Owner	\$ -
Fitness equipment	\$ 18,000
Fire extinguishers - cabinets included in "Construction \$"	\$ 1,000
Computers, Copiers & printers by Owner	\$ -
Kitchen equipment	\$ 10,000

Furniture, Fixtures and Equipment Sub-total	\$ 366,000
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ALLOWANCES & CONSULTANT FEES

Credit Rating - Bond Consultant to determine necessity	\$ -
Municipal Bond Consultant - Owner to validate allowance	\$ 10,000
Municipal Finance Counsel Fees - Owner to validate allowance	\$ 40,000
Fire Department's Counsel Fees - Owner to validate allowance	\$ 10,000
Env. Assessment & Subsurface Investigation	\$ 12,000
Contaminated Site Soil clean-up (non-anticipated)	\$ -
Asbestos / Lead Survey, Testing, Report, Design & Monitoring	\$ -
Planning Design Services - LaBella Associates, DPC/Grants	\$ -
Topographical Survey	\$ 11,000
Builder's Risk Insurance	\$ 5,000
Construction Testing and Special Inspections	\$ 30,000
Arch. & Eng. Design Fees (as % of Sub-Total + Pre-Bid Cont.) *Estimate	7.50% \$ 606,536
Incidental Reserve	\$ 15,000
Reimbursable Expenses including Mileage, Postage, Printing of Bid Documents	\$ 14,000

Allowances & Consultant Fees Sub-total	\$ 754,000
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Preliminary Project Total	\$ 9,566,000
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Appendix E: Glossary

Emergency Medical Service – Emergency medical service is the provision of care outside the hospital by trained personnel. EMS includes first responders, emergency medical technicians, paramedics and ambulances. It is generally regulated by the Department of Health.

Advanced Life Support (ALS) - The use of specialized equipment such as cardiac monitors, defibrillators, intravenous fluids, drug infusion, and endotracheal intubation to stabilize a patient's condition.⁶

Automatic Aid – is aid from one or more neighboring departments at the time of dispatch based on a preset criteria. An example is multiple fire departments being dispatched at the time of call for a reported structure fire.

Automated External Defibrillator (AED) - Portable battery-powered devices that recognize life-threatening cardiac arrhythmias (irregular heartbeats) and delivers an electric shock to re-establish a regular heartbeat.

Basic Life Support (BLS) - A level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital. It can be provided by trained medical personnel, including emergency medical technicians, paramedics, and by qualified bystanders.

Emergency Medical Services (EMS): A group of governmental and private agencies that provide emergency care, usually to persons outside of healthcare facilities; EMS personnel generally include paramedics, EMTs first responders and other ambulance crew.

Emergency Medical Technician (EMT) - A person who is trained and certified to provide basic life support and certain other noninvasive prehospital medical procedures EMTs have greater than 150 hours of initial training.

Engine – A firefighting apparatus that can perform three major functions of fire apparatus: carry hose, pump water, and transport personnel. They carry a multitude of tools to assist in the suppression of a fire and mitigate other emergencies. They also carry ground ladders.

Exterior Firefighter – A firefighter who has been trained and equipped to assist on a fire scene performing tasks such as laying hoses, operating pumps and vehicle

rescues, but is not trained and authorized to work in life threatening environments such as burning structures.

Fire Company – An organization of personnel to respond to fires and other emergency situations base on a public dispatch. They are typically incorporated as a non-profit organization and are affiliated with a fire district or serve a municipality.

Flycar – A non-transporting vehicle dispatched by EMS to quickly assess situations or respond to non-serious injuries. Treatment is usually on the scene and if the patient needs transport to a hospital an ambulance will be called. The use of Flycars was developed to more efficiently allocate resources based on first-responder certification levels and reduce the costly dependence on using ambulances for every call.

Insurance Service Organization Rating – The Insurance Service Organization is a private organization that assesses the capabilities of fire departments to respond to and extinguish fires. The rating looks at the function of the departments, the capability of the communications system and the availability of water. A full description of the program is available at: <https://www.isomitigation.com/ppc/>

Interior Firefighter is a firefighter that has completed the minimum of a basic firefighter course, is trained to use a SCBA, is physically capable and is authorized to enter and properly equipped to enter a life threatening environment.

Ladder Truck -A fire apparatus with a permanently mounted aerial device that can reach 75 feet or more. They typically carry a variety of firefighting and rescue tools including a number of ground ladders. They sometimes carry water. pumps and hoses.

Mutual Aid is the exchange of aid between departments based on the request of an agency commander at the time of the incident. This can include the request of special resources such as rapid intervention teams, aerial devices or water supply.

National Fire Protection Association - The National Fire Protection Association (NFPA) is a global self-funded nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. It develops and updates consensus standards on a variety of topics related to the fire service including organization of fire departments, design of fire apparatus and requirements for personal protective equipment.

Paramedic - Persons trained and certified to provide advanced life support. Paramedics have greater than 1000 hours of initial training.⁷

⁷ ² ⁴ ¹⁰ <http://emr.emszone.com/glossary.aspx> last accessed 7/2016

Quint - A firefighting apparatus that can perform five major functions of fire apparatus: carry hose, carry water, pump water, and perform aerial ladder and/or water tower operations.⁸

Rescue Truck – An apparatus that transports specialty equipment and tools for technical rescue situations such as vehicle extrications and/or haz-mat responses due to traffic accidents, confined space rescues or building collapses. Common equipment includes “Jaws of Life”, cutting torches, saws, wooden cribbing and rescue ropes.

Self-Contained Breathing Apparatus (SCBA) - A complete unit for delivery of air to a rescuer who enters a contaminated area; contains a mask, regulator, and air supply

Tanker – A tanker is a fire apparatus that has the primary purpose of transporting water to a fire scene. They typically have more than 1500 gallons of water, portable ponds, suction hoses and pumps.