

**TOWN OF AVON**  
**Proposal for the Purchase of New Ladder Truck & Engine Pumper**  
**for use by The Avon Volunteer Fire Department**

Frequently Asked Questions (FAQs)

November 22, 2022

**Q1: What is the proposal?**

The proposal is to replace two pieces of the Town's fire apparatus fleet with two new vehicles for use by the Avon Volunteer Fire Department (AVFD). The Town's existing 2001 Rosenbauer HME/Metz ladder truck (Ladder 12) would be replaced with a new Pierce Enforcer mid-mount 100-foot tower ladder truck (equipped with a pump) and the Town's oldest pumper, a 2001 HME/GK (Engine 14) would be replaced by a new Pierce PUC pumper.

The Fire Department would also remove one engine from the fleet (Engine 9) and not seek to replace it. This will be made possible by specifying that the new ladder truck will include a pump and a tank, and that the new pumper will have a larger pumping capacity than the other vehicles in the fleet. These changes will bring the fleet from five front-line fire engines to four which will reduce the overall cost to maintain the fleet and eliminate the need to replace an additional engine in the future while maintaining the department's ISO rating.

The proposed cost of the vehicles are as follows:

	<b>Ladder</b>	<b>Pumper</b>
<b>Purchase Price*</b>	\$ 2,123,309	\$ 1,210,182
<b>Debt Issuance Costs</b>	\$ 48,691	\$ 48,818
<b>TOTAL</b>	<b>\$ 2,172,000</b>	<b>\$ 1,259,000</b>

\*Assumes a contract signing date prior to February 1, 2023. After this time, prices will increase 3-5% as set by the manufacturer.

**Q2: What were the concerns that led to the proposal for new vehicles?**

The existing ladder truck is in need of repairs exceeding \$120,000. Specifically, the main swivel (which transfers hydraulic and electric power to the aerial device) is leaking and needs to be replaced. The process of replacement includes transporting the current truck to North Dakota, lifting the ladder off the truck, and replacing the swivel. In this scenario, the ladder would then be put back onto the existing truck which is approaching 23 years of service and is subject to mechanical failure. While the risk is low, there is a chance of ladder failure which would lead to the truck being taken out of service as it would be unusable.

Engine 14 was built in 2001 and is the busiest engine in Town, meaning it responds on the most calls per year. While it is in service and has no known problems, it has reached the end of its expected service life. With Engine 14 being in service for 21 years, we anticipate that the availability of parts will become more of an issue as time goes on. We also anticipate that in the event of a catastrophic failure, significant repairs at a high cost will be required to keep the vehicle

on the street. By way of background, between 2019 and 2022, Engine 14 required \$65,000 in repairs.

**Q3: What was the process that was used to evaluate options and determine the requirements for the new vehicles?**

Fire department leadership reviewed the department's call history, current fire industry standards for vehicles and existing pre-incident response plans in order to develop a list of the department's preferences and requirements for the new vehicles, such as the length and height of the truck required to fit in the existing bays of the fire stations, performance capabilities, and warranties.

Using that list, the department began to meet with manufacturers, both here in Avon and at a recent national fire conference in Indianapolis. The manufacturers provided an explanation of their construction processes, an overview of each vehicle's available features and a list of other departments that purchased similar vehicles. The department provided the manufacturers with its list of requirements and preferences so that the manufacturers could determine if they had a product that would meet the Town's needs.

**Q4: What are the models recommended for purchase and why? What are the capabilities of the proposed vehicle?**

Based on the results of the process described in Q3, the Fire Department is recommending that the Town purchase a Pierce 100-foot Enforcer Mid-Mount ladder and a Pierce PUC pumper. The ladder will have a vertical reach of 100 feet at 77 degrees and a horizontal reach of 93 feet at 0 degrees. The ladder will also operate at -15 degrees, which will allow rescues below grade. The current ladder is unable to match this performance. The length of the truck will be 42 feet, 3 inches long and will have steerable rear wheels that will allow the turning radius to be decreased by 4 feet when compared to the existing ladder. A decreased turning radius allows the ladder truck to access tight driveways, parking lots and private roads more effectively than our current ladder. Finally, the ladder will be equipped with a 2,000 gallon per minute pump, allowing the truck to be used as a pumper if needed.

The Pierce PUC pumper will be capable of pumping 2,000 gallons per minute and will be able to pump while driving. The "pump and roll" features allows the Fire Department to move the truck without turning off the pump. One scenario where this is beneficial is brush fires. During many brush fires, there are multiple small fires. It is more efficient and takes less manpower to move the truck as opposed to moving the hose. The pump will be set lower in frame allowing for additional storage of equipment. It will carry 1,000 gallons of water and 30 gallons of foam concentrate that can be mixed with water.

**Q5: How are you proposing we procure the vehicles?**

As detailed in the response to Q4, the Avon Volunteer Fire Department has identified Pierce as the vehicle manufacturer that will best meet its needs for both the ladder and the pumper. Pierce, like the majority of fire apparatus manufacturers, generates its business primarily through cooperative purchasing contracts. Cooperative purchasing is a term used to describe competitive purchasing processes conducted in conjunction with other governmental units in order to achieve

better pricing due to quantity or other considerations. By aggregating demand, organizations are able to reduce the time and effort spent on the administrative activities related to public bidding such as drafting complex specifications, while increasing market power and achieving lower prices. Cooperative purchasing is encouraged by Section VI.F. of the Town's [Purchasing Procedures](#) which were most recently reviewed and amended by the Town Council in December 2018.

The identified Pierce vehicles, along with fire apparatus made by over a dozen other manufacturers across the country, are available through a competitively bid contract ([Contract # FS12-19](#)) through the [HGAC-Buy Purchasing Cooperative](#). The Town has been a member of HGAC-Buy since spring 2022. The Town proposes utilizing this contract pricing in order to procure both the ladder and the pumper. Assuming approval, the Town would execute an agreement under this contract and the Town's order would be placed in the queue for assembly. The Town's point of contact is the only Pierce dealership that is permitted to do business in Connecticut: Firematic of Smith Point, NY.

**Q6: How did the dealer develop the price proposal that has been provided to the Town?**

All Pierce dealers across the country participate in the HGAC-Buy contract and adhere to the same pricing schedule for the vehicles that they offer under the contract. Pierce is required to update its pricing at particular points throughout the year and submit said updates to HGAC. The cost estimates that are being considered by the Town at this time reflect the pricing schedule that is in effect until February 1, 2023, after which point, we would expect an increase of 3-5%. We are recommending the purchases be considered at a January Special Town Meeting in order to avoid the impact of this anticipated increase.

There are two components to the price proposal. First, the department and the dealer identify the base model vehicle from the pricing schedule that will best fit the needs of the department. In this case, the base models are as follows:

- Ladder – FS19VA09 Pierce Arrow Chassis, 4-Door Full Tilt Aluminum Cab, Formed Aluminum Body, Tandem Axle, 100' Mid-Mounted Telescoping Ladder with Platform
- Pumper – FS19VC07 Pierce Enforcer, 4-Door, Full-Tilt, Aluminum Cab, Aluminum Body, Single Axle, 1250 GPM Pump, Mid-Mounted Pumper

Pictures of each of the vehicles have been attached to this Q&A for reference. From there, the department works with the dealer to identify options to customize the truck to best suit the needs of the department. There are “published” options which include the more popular add-on features. These are competitively bid as part of the HGAC-Buy bidding process and included on the pricing schedule under the contract. There are also “unpublished” options that are less popular add-ons that are not included on the pricing schedule under the contract but still available to be added to the vehicle at a rate set by the dealer. The cost of the base model selected plus any options yields the total cost of the vehicle under the contract.

**Q7: How do you know the proposed pricing is competitive? Why doesn't the Town develop its own public bidding process to potentially achieve greater savings than the cooperative contract can provide?**

Briefly, a public invitation for bid process facilitated by the Town would not yield pricing that is equal to or more advantageous than what is being offered under the HGAC-Buy contract.

There are three reasons for this. First, the agreement with HGAC-Buy includes a "Most Favored Customer Clause." This means that if a contractor were to offer a customer outside of the cooperative a better price for a vehicle than what is on the HGAC-Buy pricing schedule, the contractor would be required to provide the same or better pricing to all customers under the HGAC-Buy contract.

Second, each of the base model vehicles and the published options identified on the HGAC-Buy price schedule carry an individual discount under the HGAC-Buy contract. These discounts would not be calculated into the bid price if the Town were to advertise an invitation for bid on its own.

Third, all Pierce dealers in the country are participants in the HGAC-Buy contract. This means that any bid process facilitated by the Town would not result in competitive proposals from Pierce dealerships. Additionally, Pierce, like many manufacturers, assigns sales areas to its dealerships. Dealers cannot sell to entities located outside of their assigned zone. Connecticut is located in Firematic's sale zone.

**Q8: How does the Town propose financing these purchases?**

The project will be funded through the issuance of debt. There are two options under consideration: a general obligation bond issuance that would be conducted through a competitive sale process, or a bank loan (also known as a direct placement).

**Competitive Sale** – A competitive sale issuance of general obligation bonds could be the most reliable way to achieve the lowest possible interest rate for the Town at the time of issuance. Competitive sales ensure competition amongst potential buyers. The downside to a competitive sale is that it typically results in higher issuance costs for the Town because of the need to develop an official statement and complete presentations to the rating agencies (Moody's, Standard & Poor's) prior to going to the market. Whenever possible, the Town will try to combine several smaller projects into a single debt issuance before entering into a competitive sale as the issuance costs will represent a smaller percentage of the total amount of the transaction.

**Bank Loan/Direct Placement** – The process for a bank loan is typically simpler than a competitive bond sale. Competitive quotes can be solicited via a request for proposals process conducted by the Town's Municipal Advisor. Bank loans have lower issuance costs because the transactions are much simpler, and no official statement or ratings presentations are required. Additionally, there are fewer ongoing compliance requirements. The downside to a bank loan is that interest rates may be slightly higher when compared to those associated with a competitive sale.

When the time comes to issue the debt (most likely just before accepting delivery of the vehicles and making payment in full), the Town, in consultation with its Municipal Advisor and Bond Counsel, will determine which of these two funding mechanisms will offer the Town the lowest cost over the life of the financing, when considering both external market factors such as interest rates, and internal factors such as the timing of other Town projects that are ready for issuance.

**Q9: Are there any grants available to fund these types of purchases?**

There are competitive grants available through FEMA, however apparatus grants are very difficult to obtain. While the Fire Department was awarded a grant for the replacement of our Self-Contained Breathing Apparatus (SCBA), it was denied a grant application for public safety radios and a tanker because the call volume and call types were different when compared to towns of similar size and demographics.

**Q10: What is the approval process for these purchases?**

Per Section 10.3.1 (a) (1-2) of the Town Charter, a Special Town Meeting is required for any resolution making an appropriation of more than one percent of the current year tax levy but less than one-tenth of one percent of the current grand list, and for any resolution authorizing the issuance of bonds, notes or other borrowing in an amount that is less than one tenth of one percent of the grand list. The current year tax levy totals \$92,331,608 and the current Grand List totals \$2,667,772,547. As the purchase of each of these vehicles, when considered individually, falls within this range (\$923,316 - \$2,667,772) and will be funded through the issuance of debt, a Special Town Meeting is required.

During the Special Town Meeting, the purchases will be proposed and discussed and at the conclusion, the moderator will call for a hand vote on the purchase of each vehicle. The purchases will be approved if a majority of those persons present at the meeting and qualified to vote, vote “yes.” The vehicles will be considered independently of one another, with a separate hand vote conducted for each purchase.

**Q11: When will the vehicles arrive and be put into service?**

The new vehicles would arrive in mid-late 2024 and would be put into service after sufficient training occurs for Fire Department members. The training process typically takes a few weeks.

**Q12: What will you do with the old engines once they are removed from service?**

The old vehicles will be turned over to the Department of Public Works for disposal. These vehicles can either go to auction, sold through a 3<sup>rd</sup> party dealer or donated to departments in need.

**Q13: Describe the AVFD’s current apparatus fleet.**

The current Town-owned fleet includes the following fire response apparatus: five front-line fire engines, a mini-pumper/brush truck, a ladder truck, a rescue truck and a tanker. Additionally, the AVFD Corporation purchased and owns six light duty vehicles and trailers used to support a variety of needs. Because the proposed ladder truck includes a pumper feature, the Fire Department

would remove one engine pumper from service and not seek to replace it. This would bring the fleet to four front-line fire engines.

**Q14: Why are that many vehicles necessary for a town of Avon's size?**

The Town of Avon is 23.15 square miles with a population of approximately 19,000. The Town is protected by four fire stations that are strategically placed to reduce response times and provide efficient and effective fire protection. For comparison purposes, Simsbury has six fire stations with an area of 34.3 square miles and a population of approximately 24,500. On average, in both communities, this equates to about 5.7 square miles and roughly 4,000-5,000 individuals served by each station.

Each fire station needs an engine (to pump water) and a support vehicle for non-emergency service calls (traffic control, basement pump outs, etc.). The department also operates a ladder truck for the apartment buildings, the residence hall-style buildings at Avon Old Farms School, and the large commercial properties. Additionally, the department deploys a tanker that carries 3,200 gallons of water to service properties in the 20% of town that does not have a public water supply, such as Avon Mountain, Arch Road, etc. The department also operates a heavy rescue truck that carries equipment for vehicle extrication, firefighter rescue and rope rescue.

The "Avon Fire Department Plan for the Future" study completed by the Center for Government Research in October 2022 concludes that the number of apparatuses in the Town's fleet is appropriate by industry standards and there is no need to add or subtract from the number of front-line engines (numbering four, plus one reserve and one mini) or aerial trucks (one). A copy of this report is available on the fire department page of the Town's website.

**Q15: Why do we need a ladder truck in a suburban, primarily residential community like Avon?**

The ladder truck allows the fire department to access the upper floors of apartment buildings and residence hall-style buildings, as well as the two hotels. Also, many houses in Avon exceed 3,000 square feet, are three stories high and have a large setback from the street. Some examples include Avon Old Farms School, the Residence Inn by Marriott, Avon Village Center and River Ridge at Avon.

**Q16: How often do these vehicles go out on calls annually? How often are they actually utilized for their intended purpose while out on calls?**

Engine 14 (the Town's busiest engine) responded to 389 calls from June 1, 2021-June 1, 2022, and Ladder 12 responded to 373 calls from June 1, 2021-June 1, 2022. The Fire Department responded to a total of 659 calls during that period. The two vehicles that are identified for replacement are used regularly for a variety of tasks including transporting rescue equipment and personnel to calls, pumping water and accessing roofs or other high areas. Many situations require specific equipment or capabilities of each truck.

**Q17: How does the public benefit from new apparatus?**

The public will benefit from new apparatus because they are reliable (reduced operating cost and downtime), safe for the firefighters because they meet all the latest safety codes and will provide better fire protection and rescue than the current apparatus. When a resident calls 911 for the Fire Department, they expect the department to respond quickly, well-staffed and with apparatus and equipment that will assist the firefighters in performing their duty. These new vehicles will be more maneuverable than the current apparatus, will be able to pump more water than the current apparatus (2,000 gallons per minute vs. 1,500 gallons per minute) and can hold more equipment.

**Q18: What are the alternatives to purchasing new vehicles? Why are they not being recommended?**

**Repair existing**

The existing ladder needs too many repairs to make it worth the investment. The cost of repairing a truck of that age will likely balloon once repairs begin. While Engine 14 does not require significant work at this time, it is highly likely that significant repairs will be required in the near future as many components have reached the end of their useful life and would be expensive to repair. In some cases, the components may not be able to be repaired.

**Take out of service and not replace**

The Town of Avon is required to have a ladder truck in order to maintain its current ISO split fire rating of 4 – 4B. An ISO fire rating is a score provided to fire departments and insurance companies by the Insurance Services Office (an insurance advisory organization that provides statistical and actuarial information to businesses with a focus on property/casualty insurance for residential and commercial properties). The rating is based on a variety of factors related to a fire department's ability to protect the community including communications, personnel, capabilities, training, equipment, water supply and fire prevention programs.

The practical impact of an ISO score for a local fire department is the potential impact that a community's score has on residential and commercial insurance premiums in a community. The higher an ISO score, the lower the insurance premium. While removing pieces from the fleet such as the ladder or an engine and not replacing them might result in both capital and operating savings, the AVFD would be unable to provide adequate fire protection services to the community, most likely resulting in a decreased ISO rating.

**Purchase combination style vehicles**

Combination vehicles, such as an engine-tanker that would both carry water and pump it out, has the potential to be an effective use of limited financial resources. However, generally speaking, combining functions leads to larger, heavier vehicles that are more difficult to maneuver, park and drive up the steep ridges for which Avon is known. Additionally, combination vehicles can lead to role confusion on the scene of a call. The order in which a vehicle arrives on a scene and its capabilities determines what its role will be. A combination vehicle may be asked to perform multiple tasks at once that could impact the outcome of a situation. An example would be if an engine-tanker were the first truck to arrive at a fire and starting pumping water, it could not be

used in the water shuttle which in turn would reduce the amount of water that could be brought to the scene.

### **Share apparatus amongst neighboring towns**

Each town has specific needs to support its community. A ladder designed by Avon may not meet the needs of Simsbury and an engine designed by Canton may not meet the needs of Avon. For example, the Canton Fire Department operates a rear mount ladder which has a higher travel height, is longer and may not fit into tight spaces in Avon. Sharing apparatus may put undue burden on the town housing the truck as it would be up to the host community to staff, maintain and fuel the truck. Avon would have to depend on a surrounding community for a ladder, would place an undue burden on that community, would not guarantee priority response to our town and the vehicle may need to travel a longer distance to respond, increasing response times. Many volunteer fire departments are facing reduced staffing levels and the Fire Department must anticipate a mutual aid or automatic aid partner not being able to respond with sufficient personnel.

### **Q19: What are the maintenance costs associated with each of the proposed vehicles?**

Each of the vehicles will undergo routine annual maintenance. This maintenance includes chassis service (oil, brakes, etc.), National Fire Protection Association required fire pump test, annual aerial device inspection and testing and a nondestructive aerial test every 5 years. Annual maintenance costs can range from \$5,000-\$12,000.

### **Q20: What is the relationship between the Town and the AVFD?**

The Town and the AVFD are independent legal organizations. Though not formally affiliated, each entity provides the other with benefits that are critical to operations and fulfillment of mission. The AVFD is an entirely volunteer organization composed of over 200 members serving in a variety of roles including firefighters, fire police, administrative members, explorers, veterans, lifetime members and honorary members. Members are not paid however they are afforded a number of benefits based on activity and tenure within the department including tax abatement, length of service awards (a defined contribution program), life insurance, and others.

The Town provides the AVFD with the majority of its annual operating funds. In Fiscal Year 22/23 this contribution totaled \$988,667 and included personal service items, such as wages and benefits for 1.5 FTE to provide clerical services and worker's compensation insurance for members, as well as services and supplies items including a lump sum operating grant in the amount of \$791,680, motor fuel, vehicle allotments for officers, and tax abatements. Further details can be found on page F.11 of the Town's budget document which is available for review at the following link: [www.avonct.gov/home/pages/annual-town-budget](http://www.avonct.gov/home/pages/annual-town-budget). Additionally, the Town provides the department with a liability insurance policy with a total annual premium of about \$55,000, a custodial services contract, and assists with vehicle and facility maintenance.

The AVFD has operational control of the three Town-owned firehouses (Companies 1, 3, & 4) as well as Town-owned fire apparatus (rescue pumpers, ladder truck, etc.). Along with other Town department and agencies, the AVFD submits capital funding requests for facilities improvements



and equipment purchases to the Town each year. Funding is ultimately appropriated in consideration of the Town's infrastructure and equipment priorities as a whole.

**Q21: How do you determine the long term needs of the fire department?**

Traditionally, the AVFD Board of Directors and the Fire Chief determine the long term needs of the Fire Department. This is done through internal analysis and utilization of response data, member participation and trends in the fire service. However, in 2021, the Town of Avon contracted with the Center for Governmental Research to perform a study of the fire service in Avon and make recommendations regarding the department's facilities, apparatus and equipment for the next ten years. The final report was presented to the Town Council on October 6, 2022 and a copy of the consultant's presentation is included in the meeting minutes posted on the Town's website.

**Q22: How do you prioritize vehicle replacements? What other vehicles will require updates in the near future?**

The Fire Department maintains an apparatus replacement program. This program is based on NFPA recommendations and recommendations from the Department of Public Works. The apparatus is ranked based on the age, condition, how often it responds and annual maintenance cost. Over the next five years and after we replace Ladder 12 and Engine 14, we anticipate the need to replace a Tanker, an Engine and several support vehicles (pick-up and utility).

Additionally, in 2021, the Town and the AVFD hired the Center for Government Research (CGR) to review the department's facilities and apparatus and develop a ten-year master plan to provide for the capital needs of the department over the long term. The final deliverable included a review of each of the Town's apparatus and a recommended replacement schedule, largely in line with the department's existing replacement program. This proposal is consistent with the recommendations of the AVFD, Public Works and CGR.

**Q23: Who do I contact with questions about this proposal?**

Bruce Appell, Fire Chief may be reached at [bappell@avonvfd.org](mailto:bappell@avonvfd.org).



*Pierce PUC Pumper*



*Pierce Enforcer mid-mount 100-foot tower ladder truck*