

Bid Specifications



Town of Addison, Texas

Request for Proposal (RFP)

RFP 20-08

**FIRE STATION VEHICLE EXHAUST REMOVAL AND FILTRATION
SYSTEM**

Addison Central Fire Station and Fire Station 2

Proposals are due by November 19, 2019

2:00 P.M. local time

**TOWN OF ADDISON
REQUEST FOR PROPOSALS NO. 20-08**

FIRE STATION VEHICLE EXHAUST REMOVAL AND FILTRATION SYSTEM

INTENT

The Town of Addison General Services Department is soliciting sealed written proposals from qualified vendors for the installation of a vehicle exhaust and filtration system capable of removing intermittent exhaust migration due to apparatus or other internal combustion equipment being run in the facility bays, on the tarmac or apron and entering/exiting bays at Addison Central Fire Station located at 4798 Airport Pkwy, Addison, TX 75001 and Addison Fire Station 2 located at 3950 Beltway Dr. Addison, TX 75001. All Equipment proposed for this project shall be specified in the proposal. In addition, vendors shall submit an estimated timeframe to complete the installation in number of business days.

AWARD

Award shall be made to the responsible vendor whose proposal is determined to be the most advantageous to the Town. Once awarded by Council, the vendor will be notified to proceed with work.

REQUIREMENTS FOR RFP NO. 20-08

FIRE STATION VEHICLE EXHAUST REMOVAL AND FILTRATION SYSTEM

All proposals shall be in compliance with the with the National Fire Protection Association as well as all State of Texas and Town of Addison codes. All proposals shall comply with current Town of Addison Fire Department requirements for submittals.

PROPOSAL EVALUATION PROCESS

Proposals will be consistently evaluated and scored using the following weighted criteria:

- Proposer's reputation based on reference checks and examination of reference properties
- Experience in performance of comparable engagements
- Conformance with the terms of this Request for Proposal
- Proposed system
- Reasonableness of costs to install and operate

Proposals shall be kept confidential until a contract is awarded.

MAXIMUM PROPOSAL GRADE IS 100 POINTS

30 Points:

- Ability of the equipment to meet the Town's requirements. Ease of use and operation of the system.

50 Points:

- Total cost, with consideration of both acquisition cost as well as ongoing operational costs.

20 Points:

- Experience in performance in comparable projects, ability to support user's needs, results of reference checks, level, quality and type of training and technical assistance provided.

Evaluation Criteria

- The evaluation committee may also contact the references provided in response to the Section identified as Company Background and References; contact any vendor to clarify any response; contact any current users of a vendor's services; solicit information from any available source concerning any aspect of a proposal; and seek and review any other information deemed pertinent to the evaluation process. The evaluation committee shall not be obligated to accept the lowest priced proposal but shall make an award in the best interests of the Town of Addison.
- Each vendor must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, contract breaches, any civil or criminal litigation or investigations pending with involves the vendor or in which the vendor has been judged guilty or liable. Failure to comply with the terms of this provision may disqualify any proposal. The Town of Addison reserves the right to reject any proposal based upon the vendor's prior history with the Town or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.
- Clarification discussions may, at the Town's sole option, be conducted with vendors who submit proposals determined to be acceptable and competitive. Vendors shall be accorded fair and equal treatment with respect to any opportunity for discussion and/or written revisions of proposals. Such revisions may be permitted after submissions and prior to award for the purpose of obtaining best and final offers. In conducting discussions, there shall be no disclosure of any information derived from proposals submitted by competing vendors.

INSTRUCTIONS TO PROPOSERS

1.0 RECEIPT AND PREPARATION OF THE PROPOSAL

- 1.1 **Proposers are required to submit three (3) paper versions of their proposal and one digital version on a USB memory stick.** Proposals should be delivered to the Purchasing Division in the Finance Building of the Town of Addison located at 5350 Belt Line Rd., Dallas, TX 75254 to the attention of Wil Newcomer by November 19, 2019, 2 pm local time. Proposals must be received by the specified time in order to be considered, and proposals submitted after this closing time will not be considered and will be returned unopened.
- 1.2 Each proposal shall be enclosed in a sealed envelope, addressed to the Purchasing Manager, Town of Addison, 5350 Belt Line Road, Dallas, Texas, 75254. Proposals must be labeled in the lower left-hand corner with the Proposal Number and Name (**RFP 20-08: FIRE STATION VEHICLE EXHAUST REMOVAL AND FILTRATION SYSTEM Addison Central Fire and Fire Station 2**). Proposers must also include their company name and address on the outside of the envelope.
- 1.3 Bidders are responsible for making certain bids are delivered to the purchasing division. Mailing of a bid does not insure that the bid will be delivered on time or delivered at all. If bidder does not hand deliver bid, it is suggested that he/she use some sort of delivery service that provides a receipt.
- 1.4 Bids may be withdrawn prior to the above scheduled time set for closing of the bids. Any bid received after the time and date specified will not be considered.

- 1.5 The Town of Addison reserves the right to postpone the date and time for opening bids through an addendum.
- 1.6 No changes to bid, including pricing structure, time to completion, and references may be made following submission of the bid packet.

2.0 ADDENDA AND EXPLANATIONS

- 2.1 Any addendums will be posted via www.Bidsync.com. It is the sole responsibility of the vendors to check for addendums.

3.0 TAXES

- 3.1 All proposals are required to be submitted **without** State Sales tax. The Town of Addison is exempt from payment of such taxes.

4.0 PROJECT INFORMATION

- 4.1 Project Identification: Fire Station Vehicle Exhaust Removal and Filtration System: Addison Central Fire Station And Fire Station 2

5.0 SCOPE OF WORK COVERED BY CONTRACT DOCUMENTS

- 5.1 The Work of Project is defined by the Contract Documents and consists of the following:
 - 5.1.1 Installation of vehicle exhaust filtration and removal system and related electrical, engineering and architectural modifications to the existing Addison Central Fire Station and Fire Station 2.
 - 5.1.2 All labor, materials, and equipment necessary to put in working operation a complete turnkey system to remove both diesel and automotive exhaust gases and particulate of operating vehicles within the confines of specified fire station(s). All necessary controls, motors, fittings, ductwork, blower(s), labor and all other equipment and materials specified shall be part of the work.

6.0 PRODUCT OPTIONS

- 6.1 General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
- 6.2 Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
- 6.3 Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- 6.4 Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- 6.5 All items of equipment and materials described in these specifications are to be furnished installed and placed into proper operating condition in accordance with good practice and manufacturer's written or published instructions.
- 6.6 The exhaust removal system shall provide exhaust migration due to apparatus or other

internal combustion equipment being run and complete evacuation of all diesel fumes at the source from start up to exit of the apparatus from the fire station. The diesel exhaust removal system shall be capable of delivering complete coverage for bays up to 60 feet (18.3M) in length. The system must be able to accommodate drive through and back-in bays to meet all the needs of the fire department.

- 6.7 System must be designed and installed to NIOSH recommendation, specifying that occupational exposures to carcinogens be limited to the lowest feasible concentration. Exposure in the human breathing zone should be limited to lowest feasible level, without any time delay required for the system to effectively capture the diesel fumes.
- 6.8 System must also be capable to provide virtually complete capture and evacuation of carbon monoxide emitted as part of the vehicle exhaust.
- 6.9 Systems that solely use filters, in which diesel particulate may accumulate, and that would potentially have to be treated as hazardous materials, will not be accepted.
- 6.10 System must meet the guidelines for the International Mechanical code for Source Capture Systems. Such system is defined as a mechanical exhaust system designed and constructed to capture air contaminants at their source and to exhaust such contaminants to the outdoor atmosphere.
- 6.11 The system shall not affect personnel boarding the apparatus. Hose loops shall not hang any lower than six feet from the bay floor. The hose assembly shall not come into contact with the vehicle other than one connection point to the vehicle tailpipe. The hose assembly shall not touch or drag on the bay floor.
- 6.12 The exhaust system shall not be located near any dormitory or living quarters and shall not affect personnel.
- 6.13 The exhaust system shall not block doorways, exits, and aisles in the apparatus bay, which could endanger the welfare of fire personnel or visitors.
- 6.14 The exhaust system shall not need to be disconnected from the vehicle while shore lines are connected, during battery charging, or washing of the vehicle, as with other types of systems.
- 6.15 To protect the apparatus electrical system from possible damage, the system bid shall not incorporate any type of electromagnetic device that requires the apparatus to be utilized as an electrical ground for systems operation.
- 6.16 The system shall not detach itself from the apparatus for any reason during a power failure other than normal exiting of the apparatus bay. System shall discharge exhaust outside the station even in the event of a power failure.
- 6.17 The system shall capture the exhaust gases and particulate directly from the tailpipe of the apparatus by a direct connected "visible" high temperature rated hose. Particulates emitted from the apparatus are known to be heavier than air and therefore must be captured by a directly connected hose with a tight seal, as loose nozzles or air filters cannot capture these heavy particulates. The particulates have been documented to be the main respirable carcinogen in diesel exhaust, and therefore are the primary concern of the fire department to capture these particulates.
- 6.18 The proposed system shall include a Magnetic nozzle and high temperature hose assembly with safety disconnect coupling.
- 6.19 The proposed shall include an adjustable capture stack.
- 6.20 The proposed shall also include a fully automatic control system.

7.0 EXHAUST SYSTEM GENERAL COMPONENTS

7.1 SUPPORT LEGS

7.1.1 Support Legs: Manufactured and provided by the supplier of primary exhaust removal system (Equipment Manufacturer). Support Leg Material: Aircraft aluminum alloy Type AA-6063 (ASTM B209/B209M). Supports: Standard in 19 feet lengths. A minimum of one support with appropriate bracing shall be provided for every 10 lineal feet (3 m) to 12 linear feet (3.7 m) of rail profile. The support legs shall consist of a square outer profile with dimensions no less than 2 inch (50.8 mm) OD by 0.1 inch (2.54 mm) by with 0.4 inch (10 mm) fastening hardware provided. The vertical adjustable mounting foot shall be capable of attaching the leg assembly to a ceiling with a 30-degree pitch, complete with 3/8-inch (9.5 mm) hardware necessary for mounting the leg assembly to the top suspension mount. The support leg shall be equipped with round tubular zinc-plated steel knee brace with pressed ends in standard lengths of 20 inch (508 mm), 30 inch (762 mm) and 72 inch (1828.8 mm). The angle shall be completely adjustable to the leg support and mounted perpendicular and parallel to direction of the rail. The typical support angle shall be 45 degrees from the centerline of the factory provided support leg. The standard leg shall be capable of meeting a Seismic Zone 4 requirement. Vertical support and bracing shall be provided to safely secure the rail profile in accordance with building code and seismic standards which may apply. A minimum of one support with appropriate bracing shall be provided for every 10 lineal feet (3 m) to 12 linear feet (3.7 m) of rail profile.

7.2 UPPER FLEXIBLE HOSE

7.2.1 Upper Hose: Flexible exhaust hose manufactured for the sole purpose of venting high temperature exhaust gases. Flexible Hose: Designed strictly for the harsh environment of rapid response and auto-release of a vehicle exhaust tailpipe. Hose: Range from 4 inch (101.6 mm) to 5-inch (127 mm) diameters with length of 25 feet (7.6 m) without joining or splicing connections. Hose Material: High temperature synthetic rubber impregnated into a high temperature laminated fabric with a minimum overlapping thickness of 2-7/16 inches (61.9 mm). This construction of hose must be capable of operating at continuous temperatures of 400 degrees F (204 degrees C) and intermittent temperatures of 500 degrees F (260 degrees C) such as are experienced when pump checks are performed inside the station. Wire Helix: Bound and protected in laminations of hose winding. This shall be accomplished in a fashion which eliminates any possibility of personnel coming in contact with an exposed hot metal helix. The hose shall further protect the internal wire helix from heat buildup and in turn add increased visibility to personnel. Wear Strip: 9/16 inch (14.28 mm) wide and be provided as a safety yellow color. The bend radius of the high temperature hose shall be no less than 1.5 times the diameter of hose to ensure that hot gases are not restricted as they pass through the system.

7.3 LOWER HOSE ASSEMBLY

7.3.1 Lower Hose: Rigid 4 inch (101.6 mm) to 5 inch (127 mm) diameter by 2 foot (609.6 mm) long section of yellow and black hose identical in appearance to the upper hose assembly. Lower Hose: Support the pneumatic connection nozzle and chrome reducing elbow in a rigid fashion to allow for the operator to place hose collection nozzle onto the tailpipe without bending over. Lower hose is the only section of hose which shall disconnect from the upper hose assembly and act as a safety disconnect in the unlikely event the nozzle gets entangled.

7.4 SAFETY DISCONNECT COUPLING

7.4.1 Safety Disconnect Coupling: 4-part segmented coupling with removable wear strips to protect the vehicle and disconnect from wear shall be incorporated in the design of the system.

7.4.1.1 Coupling: Consist of two spun aluminum collars connected by a reusable-segmented coupling band. The release tension of this device shall be preset at 130 pounds and adjustable from 20 pounds to 206 pounds of separating force to accommodate varying exit speeds of vehicles.

7.4.1.2 Coupling: Reusable.

7.5 COLLECTION NOZZLE ASSEMBLY

7.5.1 Magnetic Nozzle: Engineered and specially designed Patent Pending exhaust system nozzle (female connection) that is specifically designed to fit tightly over the circumference of an engineered conical mating ring (male connection) that attaches to the tail pipe and attaches tightly around the ring to capture virtually 100% of the carcinogenic diesel exhaust

7.5.2 The Stainless-reducing elbow that connects to the connection nozzle shall be fabricated using continuous welded construction. Angle of Transition: No less than or greater than 67 degrees from the centerline of the reducer. stainless Reducer: Incorporate a primary expanded metal debris screen, which is permanently affixed by welded seams to the inside, opening of exhaust fitting.

7.6 HOSE "SADDLE" RIGID ELBOW

7.6.1 Hose Suspension Saddle: Fabricated of chrome steel specifically manufactured for the sole purpose of suspending high temperature exhaust ventilation hose in a rapid response and auto-release application. The design of the saddle shall smoothly transition the direction of the hose during its travel along the track. Securing clamps shall be provided including a link fastener, for the purpose of mounting it to the balancer safety link.

7.7 ELECTRICAL CONTROLLERS

7.7.1 Controller: Built and supplied by a UL recognized and listed exhaust system manufacturer. Controller shall carry the UL - CUL listing label as an "Enclosed Industrial Control Panel." Individual components listed by UL - CUL shall not satisfy the above requirement. Manufacturer shall undergo monthly inspections by UL to verify all requirements and standards are met as outlined by UL. The controller shall be delivered as an Operating System Three series controller or an approved equal to the specifications to follow.

7.7.2 Electrical Controllers: Bear a visible UL listing label as proof of subscribership and shall be validated by UL www.ul.com/database/ as an "Enclosed Industrial Control Panel". Certification documents shall accompany bid documents. No exceptions.

7.7.3 Electrical controller and manufacturer shall be recognized and listed by UL. Controller shall be manufactured in accordance with Underwriters Laboratories standard UL-508 for "Enclosed Industrial Control Panels". The electrical controller shall include a Class 1 limited energy control circuit. Enclosures shall be NEMA 12 rated and UL listed as Type 12. The electrical control components shall be provided and mounted in an electrical enclosure to restrict access to internal components of the controller by authorized personnel only.

- 7.7.4 Controller Performance: Designed to sense the output pressure and temperature change inside the ductwork system, which is normally generated by any internal combustion engine designed to propel a motor vehicle. The operating logic shall be designed to complete this cycle. At any point in time when a collection device is connected to a motor vehicle's exhaust tailpipe, as the operator starts the vehicle, the controller shall automatically sense the engine's output pressure or temperature of the exhaust and in turn energize the electrical contractor which will supply power to the AMCA certified spark resistant fan motor. Through the use of an adjustable timer the controller shall keep the contactors energized for up to six minutes in accordance with the station's response requirement. If the responding vehicle does not disconnect from the exhaust ventilation system in less than the designated setting, the temperature override switch shall override the time delay to ensure continuous system operation. This automated function will work for as long as the exhaust gas temperature is in excess of the setting on the heat sensor located in the ductwork system. This cycle shall not allow the electrical contractor, which energizes the exhaust fan, to short cycle or stop the fan while the system is connected to an operating vehicle.
- 7.7.5 Motor Control Contactor: Allen Bradley Industrial Electrical Contactor 100C series. The contactor shall be UL - CUL listed as an approved component.
- 7.7.6 Motor Control Overload Relay: Allen Bradley 193 ES series. Overload relay shall have an adjustable trip range to meet the proper full load amperage of the blower motor.
- 7.7.7 Soft Touch Controls: Incorporated on the face or the access door of the controller by the use of an adhesive backed Lexan membrane type label to prevent water infiltration, which would void the NEMA 12R rating. Label: Provided and secured permanently to the exterior of the electrical controller. Label: Include the name of the manufacturer, address, telephone number, user instructions and any warnings or cautions required by Underwriters Laboratories.
 - 7.7.7.1 Auto Start: This mode of operation shall be strictly for normal day use, as it would apply to receiving an emergency call and leaving the station. Any one or combination of the three devices listed below in Paragraph H shall activate the system. The system shall maintain itself in the Auto Start mode and always return there after the Stop sequence has been initiated. The controller shall not have a permanent off position due to the potential health hazards of diesel exhaust components.
 - 7.7.7.2 Stop: This mode of operation shall be a system override to shut down the system manually. Upon activating this mode of operation, the exhaust system blower shall shut down. After a period not to exceed three seconds the controller shall automatically return to the Auto Start ready mode. This shall be a safety feature to prevent a potential health hazard from carcinogenic diesel exhaust leakage from systems having an undesirable open nozzle. This mode of operation shall be a system override to run the exhaust system blower continuously for the purpose of running the vehicles indoors for equipment checks during inclement weather. Upon activating this mode of operation, the exhaust system blower shall start and run continuously until the Stop mode is activated at which point the system will automatically return to the Auto Start ready mode within a maximum three second time period.
- 7.8 System Indicator LED's: Show system status at all times.
 - 7.8.1 Auto Start Indicator: Indicate the system is in the fully automatic mode of

operation and that power is on to the controller.

- 7.8.2 Fan On Indicator: Indicate that power is being applied to the system blower and the controller is operating normally.
 - 7.8.3 Filter Status Indicator: Indicate, if flashing, excessive pressure loss across the filter bank media. Consequently the filter must be serviced to maintain optimum efficiency of the system.
 - 7.8.4 Stop Indicator: Indicate the fan has been manually de-energized and will return to the Auto Start ready sequence in less than three seconds to prevent the system blower from being left in the Off mode.
 - 7.8.5 Manual Run Indicator: Indicate the fan is operating in a continuous run mode until interrupted by the stop mode activation.
 - 7.8.6 Controller Transformer: UL listed industrial control circuit transformer sized to properly supply all components so that only one transformer shall be required. Transformer shall be provided with multi-tap primary for 115, 208, 240, 277, 400, 480, and 600VAC, and 24, 120, 230VAC secondary operating on 50 or 60 hertz with a capacity of 90-volt amperes.
 - 7.8.7 Control Circuit Protection: By the use of primary and secondary fuses (NEC code ref. 430-72) to meet UL requirements. The primary shall be protected by a pair of FLQ style fuses rated at 1.6 amps for voltages under 400V and a pair of .75 amp fuses for voltages over 400V. The primary fuse holder shall have a standard indicator light feature to aid in troubleshooting blown fuses. A single glass fuse rated at 3 amps at 250V shall protect the secondary side of the control circuit.
 - 7.8.8 Electronic Control Circuit Card: Solid state printed circuit board. The soft controls shall be an integral part of the control circuit card. The control circuit card shall utilize a potentiometer to adjust the length of the timing cycle from 7 to 360 seconds. It shall incorporate several different modes of operation and optional features.
- 7.9 Activation Devices:
- 7.9.1 Engine Start Switch: An engine pressure sensing type, capable of recognizing the output pressure of any type of motor vehicle exhaust. The electrical contact shall be dry type or not to exceed 24V ac. There shall be one sensor per vehicle.
 - 7.9.2 Thermal Start Switch: Temperature sensing switch of the snap disc type and adjustable from 90 degrees F (32 degrees C) to 130 degrees F (55 degrees C) to configure the system based on different exhaust temperatures. There shall be one sensor per vehicle.
 - 7.9.3 Remote Control Transmitter and Receiver: Shall be an optional feature with three independent channels of control. The receiver shall operate on 12V to 24 V AC or DC. The handheld transmitter shall be molded out of a highly visible orange composite with a visor clip on the back making it rugged and easy to locate. It shall be powered by a 9-volt battery for ease of replacement and cost savings. Utilizing three sets of normally open and normally closed contacts allows the device to be used to control three separate functions from up to one quarter of a mile away.
 - 7.9.4 Clean Filter Indicator Alarm: Used in conjunction with the optional Unifilter for filtering diesel exhaust particulate before release to the atmosphere. The clean filter indicator shall monitor the pressure loss across the filter bank media. Once the useful life of the filter has been depleted the pressure differential switch will signal a high-pressure loss and flash the "Fan On" indicator while the exhaust

blower is running.

- 7.10 The following are optional features. Contact the factory for appropriate need and use.
 - 7.10.1 Remote Alarm: Shall be an optional feature to monitor the system and advise when a preset number of emergency runs on the system have accrued.
 - 7.10.2 No Airflow Alarm: Shall be an optional feature to monitor the system and advise when the exhaust fan is not functioning properly.
 - 7.10.3 Carbon Monoxide Alarm: Shall be an optional feature to monitor the carbon monoxide levels inside the apparatus bay area.
 - 7.10.4 Electrical Wiring: Run in wire channel to allow for easier identification of the wiring circuits and for a neat appearance. All wiring circuitry shall meet International Electrical Code and UL standards for proper size, bending radiuses (International Electrical Code) and terminations.
 - 7.10.5 Electrical Terminal Block: 600 V, UL rated and recognized. It shall provide individual connection points for remote controls, clean filter indicator and power connections. The primary and secondary control wiring fuses shall be incorporated into the terminal block as one unit.
 - 7.10.6 Product Manual: Shall be provided with each electrical control box supplied. The product manual shall include a description of components with part numbers inclusive to the controller. It shall include a wiring schematic showing all internal circuitry as well as all field installed wiring connections to the controller.
 - 7.10.7 Electrical Interference: To protect the apparatus and communications, designs that allow any possibility of electrical back-feed or induced current which may interfere with a central services communication or onboard vehicle computer logic or navigational equipment will not be accepted.
- 7.11 ELECTRICAL SYSTEM
 - 7.11.1 Station Electric Supply Panel: The power circuit for the “Emergency Response Vehicle Exhaust Removal System” shall originate in a circuit breaker panel board of the appropriate size to handle the load. Fan circuit shall be supplied by a UL listed, HACR rated circuit breaker (HACR rating is specifically for motor type loads) of the same type as indicated by the manufacturer of the circuit breaker panel or a dual element time delay fuse for fuse style panels. The circuit shall be clearly marked on an engraved ledger plate or in ink on the panel schedule as “Emergency Response Vehicle Exhaust Removal System”.
 - 7.11.2 OS-3 Automatic Controller: Built and supplied by a UL recognized and listed exhaust system manufacturer. Controller shall carry the UL - CUL listing label as an “Enclosed Industrial Control Panel”. Individual components listed by UL shall not satisfy the above requirement. Manufacturer must undergo monthly inspections by UL to verify all requirements and standards are met as outlined by UL. The controller shall be delivered as an Operating System Three series controller or an approved equal to the specifications in 2.17 Electrical Controllers. The controller shall be mounted 6 feet (1829 mm) to the top of the cabinet AFF (above finished floor). A safety disconnecting means must be within sight of the controller for servicing and for safety reasons. If the supply panel is not within sight, a separate disconnecting means is required beside the controller (NEC code ref. 430-102 (a)). Safety disconnect shall be capable of being locked in the off and on position to follow lockout, tag out procedures. See attached Table 1-1 for proper Square D part number of safety disconnect switch.
 - 7.11.3 Power Wiring Conduit: Minimum of EMT utilizing compression type fittings for

damp locations such as apparatus wash down areas (International Electrical Code). Conduit shall be supported with a conduit strap every 10 feet (3 m) and within 3 feet (914.4 mm) of each box or termination, (International Electrical Code and local modifiers.).

- 7.11.4 Power Wiring from Supply Panel to OS-3: THHN stranded copper wire consisting of a flame retardant, heat-resistant thermoplastic insulation with a nylon jacket for abrasion, gas, and oil resistance and rated up to 600 volts.
- 7.11.5 Low Voltage Control Wiring: Minimum of a 14/2 multi-conductor shielded cable (Anixter part number #2AS-1401POS or equivalent) to meet UL standards for the controller's low voltage field wiring. Termination procedure shall be as follows; the shielded cable shall be stripped back inside the control cabinet, the mylar foil shield and silver drain wire are to be twisted together and secured under the screw in the grounding lug inside the control cabinet. Terminations at each sensor must leave foil shielding and drain wire intact and at no point shall it come into contact with ground. There shall be only one connection to ground.
- 7.11.6 Power Wiring from OS-3 to Fan Motor: Minimum of EMT utilizing compression type fittings for damp locations such as apparatus wash down areas (NEC code ref.348-10). Conduit shall be supported with a conduit strap every 10 feet (3048 mm) and within 3 feet (914.4 mm) of each box or termination (International Electrical Code and local modifiers.). Conduit shall extend through the outside wall through a hole of the proper size and terminate directly into the back of the safety disconnect with the appropriate connector and sealed with a silicon sealer or cement mortar.
- 7.11.7 Fan Safety Disconnect: Square D (or equivalent), non-fusible, NEMA 3R rated for wet locations, mounted adjacent to the AMCA Certified blower. Safety disconnect shall be capable of being locked in the off and on position to follow lockout, tag out procedures. (Using fan model number select appropriate safety disconnect from attached Table 1-1).
- 7.11.8 Liquid Tight Flexible Metal Conduit: UL listed liquid tight flexible metallic conduit (Sealtite). Conduit will encase the load wires and ground wire from the safety disconnect switch to the blower motor. Conduit length not to exceed 4 feet (1219.2 mm) from disconnect to blower motor. The appropriate listed terminal fittings shall be used. (NEC code ref.351-7) (Using fan model select appropriate conduit size from attached Table 1-1).
- 7.11.9 Spark Resistant Blower: AMCA certified, designed and installed as a direct drive spark resistant blower (IMC code ref. 503.2) The motor shall meet current EPACT standards for energy savings. Fans utilizing steel housings and impellers will not be accepted.
- 7.11.10 Temperature Switch: One for each apparatus connected to the system. The temperature switch shall be of the snap disc type and adjustable from 90 degrees F (32 degrees C) to 130 degrees F (54 degrees C). It shall be mounted on the ductwork 2 inches (50.8 mm) above the pressure switch by drilling a 1-inch (25.4 mm) hole, sealing the switch with silicon sealant and securing with 2 tek screws. Electrical connection shall be made with terminals provided or solder less type such as Thomas & Betts part no. 14RB-2577 or equivalent.
- 7.11.11 Pressure Switch: One for each apparatus connected to the system. The pressure switch shall operate at a maximum of 24VAC, pre-calibrated at .18 in. of water column. Mounting shall be accomplished by drilling a 3/8 inch (9.5 mm) hole 3 inches (76.2 mm) above the riser bracket and to the left of the regulator and threading the switch into the duct. The electrical connections shall be made

with a 0.020-inch (.5 mm) by 0.187-inch (4.8 mm) female quick disconnect terminals, such as Thomas & Betts part no. 14RBD-18277 or equivalent.

- 7.11.12 Manufacturer assumes no liability for any electric installation; all local, city, and the National Electric Code must be followed. This chart was calculated for a maximum voltage drop of 3% and is to be used as a guideline.

7.12 AIR MOVING DEVICES

- 7.12.1 Centrifugal Fans: Direct drive centrifugal type, high pressure, single width, and single inlet as required or indicated. Impeller Wheels: Backward incline design for high static pressure performance, spark resistance and made of Aluminum. The impeller shall be dynamically and statically balanced and of the non-overloading type to provide maximum efficiency while achieving quiet, vibration-free operation. The fan housing shall be manufactured from aluminum AA-1050A material or equivalent with an aluminum, finish. The outlet configuration shall be top horizontal, bottom horizontal, or upblast. The housing shall be capable of field reconfiguration in the event the mounting position needs to be changed for unforeseen reasons.

- 7.12.2 Fan Motor and Bearing: All 1 horsepower (746 watts) to 15 horsepower (11190 watts) motors shall be totally enclosed fan cooled (TEFC) continuous duty rated. The motors shall be dual voltage where applicable. Motors built after October 27th, 1997 shall comply with the government mandated "Energy Policy and Conservation Act" (EPACT) as outlined by the Department of Energy. The bearings shall be self-aligned, ball bearing type permanently sealed and lubricated. The exhaust discharge outlet shall be in compliance with International Mechanical Code and ACGIH recommendations (min. of 36" above roofline). Air intakes, windows, cascade systems, prevailing currents, communication equipment and building aesthetics shall be considered in the final location of the fan.

- 7.12.2.1 Teflon Shaft Seal: The fan shaft shall be steel and rotate in a non-sparking TEFLON seal to prevent leakage and to prevent hot exhaust gases from coming into contact with the motor bearings.

- 7.12.2.2 Variable Speed Drive: The motor shall be compatible with a variable speed drive unit.

- 7.12.3 Performance: The delivered volume shall take into account all the static regain of vehicle engine exhaust (based on an airtight connection at the tailpipe), lengths of ductwork, elbows, branches, shut off, wyes, etc. which accumulate the static pressure at the field inlet. The manufacturer's provided fan(s) shall be performance guaranteed.

- 7.12.4 Fan Capacity: The Fan Capacity shall be sized as such as to deliver the required CFM at each hose drop to which the vehicle is attached.

- 7.12.4.1 The 4-inch (101.6 mm) hose system shall be designed to deliver a minimum of 500 CFM (2.9 M/Second) at a velocity of 5800 FPM (33.6 M/Second) at the hose and nozzle connection.

- 7.12.4.2 The 5-inch (127 mm) hose system shall be designed to deliver a minimum of 750 CFM (4.4 M/Second) at a velocity of 5800 FPM (33.6 M/Second) at the hose and nozzle connection.

- 7.12.4.3 The 6-inch (152.4 mm) system shall be designed to deliver a minimum of 1100 CFM (6.4 M/Second) at a velocity of 5800 FPM (33.6

M/Second) at the hose and nozzle connection.

7.12.5 Location: The preferable fan location shall be on the outside of the fire station as far away from any living quarters as possible so that firefighters would not be disturbed by the system activation. No blower fans shall be mounted inside the fire station.

7.13 DUCTWORK SYSTEM

7.13.1 Ductwork Type and Materials:

7.13.1.1 Interior Duct shall be galvanized spiral pipe construction.

7.13.1.2 All branch laterals shall be tapered body design with branch inlets at 45 degrees.

7.13.2 Ductwork Sizing and Gauges: Round pipe construction, with the range of available sizes not to exceed 10 inches (254 mm) in diameter. Duct gauge shall depend on diameter and a minimum operating pressure of 8 inches water gauge (1990 Pa). Acceptable Gauge and Reinforcement Requirements: Inner duct diameter 4 inches (101.6 mm) through 11 inches (279.4 mm) diameter shall be 22-gauge standard pipe (International Mechanical Code).

7.13.3 Ductwork Fittings: Round and have a wall thickness 2 gauges (one even gauge number) heavier than the lightest allowable gauge of the downstream section of duct to which they are connected (International Mechanical Code). Air Duct Branch Entrances: Factory fabricated fittings or factory fabricated duct /tap assemblies. Fittings: Constructed so that air streams converge at angles no greater than 45 degree (International Mechanical Code). All Seams: Continuous stitch welded and if necessary internally sealed to ensure air tightness. Turning elbows shall be stitch-welded and used for all diameters and pressures. They shall be fabricated of 20 gauge-galvanized steel and constructed as two-piece with continuous welded seam construction fittings similar to those provided by Lindab Inc. Tapered Body Fittings: Used wherever particular fallout is anticipated and where airflow is introduced to the transport duct manifold.

7.13.4 Ductwork Design Velocities: Minimum of 3500 FPM (20.3 M/Second) to 4000 FPM (23.2 M/Second) transport velocity. Capture Velocity: 5500 FPM (31.9 M/Second) to 6000 FPM (34.8 M/Second) to extract 100 percent of the exhaust gases.

7.13.5 External Ductwork: Sized for the exact inlet and outlet of the exhaust fan blower. An exhaust rain cap shall be supplied and manufactured in accordance with EPA standard for free draft rain cap requirements. Included as an integral part of this rain cap shall be a back draft damper to provide protection from rain and other inclement weather.

7.13.6 Exhaust Penetrations: The core drilling shall be properly sized to reduce the diameter of the smallest opening size.

7.14 SLIDING BALANCER TRACK – SPECIFIC COMPONENTS

7.14.1 TRACK:

7.14.1.1 A one-piece continuous extruded aluminum track in a minimum length of 19 feet (5791.2 mm). Profile shall be of a Boxloc type profile, track height 3-1/8 inches (73.4 mm), track width 1-1/2 inches (38.1 mm), track thickness 1/8 inch (3.175 mm); aircraft aluminum alloy Type AA-6063 (ASTM B209/B209M). Track: Extruded design that shall incorporate three separate and functioning channels. Channels:

Includes the mounting channel, the trolley channel and the Boxloc channel. Mounting Compartment: Designed to accept the slider bars (which shall be provided with factory supplied vertical support legs and riser clamp duct connection) and to allow positioning along the full length of the slotted track-mounting channel. Mounting Channel: Also accommodate the compressed airlines for the purposes of safe storage and appearance. Trolley Channel: Allow the trolley/balancer/ hose assembly to glide to the door threshold in a safe and effective manner. Boxloc Channel: Allow the whole track to remain rigid as it hangs from factory supplied leg supports and also shall provide an area to attach bolts for splicing additional tracks together for systems over 19 feet (5791.2 mm) long. The overall extruded track lengths shall be 19 foot standard and shall weigh no more than 35 pounds (15.88 KG). The track system shall be equipped with end stops that limit travel of flex hose as the vehicle exits the building. The end stop shall be fabricated of zinc plated steel in a U shape form with a rubber end stop on the impact end. It shall be attached by using a ¼ inch (6.35 mm) molded locking bolt. The end stop shall be secured to the track with no less than (2) ¼ inch (6.35 mm) bolts and locking nuts located on the underside of the track. For security, a ¼ inch (6.35 mm) bolt shall be drilled through the ends of each track system to ensure that the trolley/balancer assembly(s) roll no further than the end of the track system.

7.14.2 DOUBLE TRACK JOINER PLATE

7.14.2.1 Joiner Plate: constructed from a minimum of ¼ inch (6.35 mm) thick zinc-plated material, designed to connect two parallel tracks to make a double track system to accommodate an apparatus bay over 40 feet (12192 mm) in length. Joiner Plate: 10 inch (254 mm) by 8 inch (203.2 mm) flat zinc-plated steel and designed to attach the two tracks to a single factory supplied support leg. The steel plate shall have (6) 3/8 inch (9.5 mm) holes drilled 6-7/8 inches (174.6 mm) apart to accommodate the slider bar provided with factory support legs.

7.14.2.2 Joiner Plate: Have two slider bars attached to the plate, located on the outside edges of the plate. These slider bars shall fit into the Boxloc track mounting channel for a simple and secure attachment of the plate to the Boxloc track. The center portion of the joiner plate shall provide attachment for the factory supplied support leg.

7.14.3 TRACK SPLICING ASSEMBLY

7.14.3.1 Track Splice: Manufactured of galvanized steel (ASTM A653/A653M) in two parts and utilized as a clamping device. This clamp shall accurately secure both tracks together in a fashion, which shall eliminate any possibility of obstructing the trolley assembly as it passes through this connection point of track system. Connecting length of splice shall be a minimum of 15-3/4 inches (400 mm) long and fabricated of 14 gauge material. Four (4) 1/4 inch (6.35 mm) bolts with lock nuts shall pass directly through internal partition of the Boxloc track. The splicing sleeve shall fit externally around the outside dimension of extruded aluminum track profile.

7.14.4 RISER CLAMP ASSEMBLY

7.14.4.1 Riser Clamp: Fabricated as a one piece welded assembly, manufactured to create the transfer of the hard spiral pipe joined at

the top and flexible duct connection at the bottom. A slider bar and associated hardware shall be provided with riser clamp assembly. Sizes of the riser clamp will range from 4 inches (101.6 mm) to 5 inches (127 mm) in diameter to match the output velocity of the vehicles that will park in that station.

7.14.5 TROLLEY/BALANCER ASSEMBLY

7.14.5.1 Trolley Assembly: Manufactured as a two piece galvanized steel assembly including bumper stops at each end. Fixed to the side of the trolley are solid steel pins, which shall be for load carrying bearings that are sealed and permanently lubricated. The load carrying bearings shall travel internally in track trolley channel. Two additional permanently lubricated trolley wheels shall be provided on bottom side of the track to reduce wobble of trolley as it conveys the hose assembly to the door threshold. Release Plate: Attached to the chassis of the trolley to smoothly energize the uncoupling release valve when the trolley-balancer assembly approaches the door threshold. System Balancer Assembly: Self-adjusting weight spring tension balancer with a lifting capacity of no less than 31 pounds (14 KG). The balancer shall have a minimum diameter stainless steel cable of .080 inch (2 mm), with a safety link connection.

7.15 STRAIGHT RAIL SPECIFIC COMPONENTS

7.15.1 RAIL MATERIAL

7.15.1.1 Rail Material: One-piece continuous extruded aluminum rail in a minimum length of 19 feet (5791.2 mm) in an effort to reduce the points of leakage due to seams or connections. The construction profile shall be of a round profile type, diameter of 6.5 inches (165.1 mm) with a rail thickness of 0.175 inch (4.5 mm). The bottom portion of the rail shall have a continuous slot to accept a rubber seal. Rail Material: Aircraft aluminum alloy Type AA-6063 (ASTM B209/B209M). Aluminum Rail: Extruded as a one-piece design unit to maximize the structural integrity of the rail and to minimize joints. Extruded into the rail profile shall be all necessary mounting guides, which will allow for support of the rail mounting hardware and airline support cable. Mounting Channels: Provided continuously along both sides of the rail extrusion in order the proper positioning of all required mounting supports in accordance with codes. The rail shall allow the trolley/hose assembly to glide to the door threshold in a safe and effective manner. The extruded rail channel shall allow the whole rail to remain rigid and shall provide an area to attach bolts for splicing additional rails together for systems over 19 feet (5791.2 mm) long. The overall extruded rail lengths shall be 19 foot (5791.2 mm) standard. Rail System: Equipped with a hydraulic braking system that limits travel of flex hose as the vehicle exits the building. Hydraulic Brake: Incorporated into the end cap of the suction rail.

7.16 TOP MOUNTING SUSPENSION

7.16.1 Top Mounting Suspension: Designed to attach with 2 mounting cleats to the mounting slots that were extruded into the rail profile.

7.17 MECHANICAL BRAKE SYSTEM

7.17.1 Mechanical Brake System: Incorporated into the end cap of the suction rail profile. The mechanical brake system must incorporate a pair of composite

shock “bumpers” capable of reducing the forward impact of 1 to 4 suction trolleys which may be installed now or in the future to the exhaust rail system. This mechanical shock system shall be secured to a steel end cap fabricated of 6.25 inch (158.8 mm) diameter steel tubing with a wall thickness of 0.156 inch (4 mm) welded to a 0.156 inch (4 mm) steel plate with formed 90 degree side rails for rigidity. The end cap shall have a removable circular end plate to facilitate an end feed duct connection and shall be a black powder coated finish. The mechanical shock shall be capable of reducing to a full stop the trolleys in less than 4 inch (101.6 mm), without physical damage to either the rail profile or trolley that it is stopping

7.18 RAIL SPLICING JOINT

7.18.1 Rail Splicing Joint: The splice joint shall be formed aluminum extrusion equal to the internal diameter of the suction rail profile. The splice shall have a wall thickness of no less than .190 inches (4.8 mm) in thickness and a length of no less than 8 inches (203.2 mm) from end to end. The rail splicing shall be safely secured by no less than 12- 3/8 inch (314.3 mm) by 1-½ inch (38.1 mm) bolts, nuts and lock washers. Each bolt shall pass through the exterior of the rail profile and splicing joint and be secured on the inside by a lock washer and nut. Self-tapping bolts or screws are not acceptable.

7.19 MIDDLE RAIL DUCT CONNECTION

7.19.1 Middle Rail Duct Connection: The rail duct connection shall be rectangular to an 8 inch diameter round transition fitting fabricated from 24 gauge galvanized steel (ASTM A653) with a double rubber U style lip seal. The rectangular slot shall be 19 inch (482.6 mm) long by 1-¾ inch (44.5 mm) high with a 3/8-inch (9.5 mm) external flange to slide into the rail profile.

7.20 TROLLEY ASSEMBLY

7.20.1 Trolley Assembly: Gantry type trolley with sealed bearing loaded wheels designed to roll inside the internal rail profile flange. The trolley chassis shall be galvanized steel (ASTM A653) epoxy coated with a black finish. The chassis shall be fitted with a tapered cone. Rubber Sealing Lips: Vulcanized Teflon strip covering 1-½ inch (38.1 mm) of the bottom edge of the sealing lip which shall minimize resistance between the cone and the rubber sealing lips. The exhaust cone transition shall be a tapered slot design which shall fit inside the suction rail profile. The tapered slot shall be equal or exceed in area the diameter of exhaust ventilation hose to which it is attached. Trolley Assembly: Equipped with rubber impact bumpers at both the front and rear of the trolley chassis to eliminate metal-to-metal contact which could damage the trolley assembly. There shall be a system balancer assembly provided to aid in the delivery of the hose to the exit door. Balancer Assembly: Self-adjusting weight spring tension balancer with a lifting capacity of no less than 31 pounds (31 KG). The balancer shall have a minimum diameter steel cable of .080 inch (2 mm) and have a safety link connection.

8.0 CONTRACTOR'S DUTIES

- 8.1 Furnish & provide for proper execution and completion of work as required by the Contract Documents all:
- 8.2 Labor, materials and equipment.
- 8.3 Tools, construction equipment and machinery.

- 8.4 Other facilities and services necessary for proper execution and completion of the work.
- 8.5 Attain and pay for all required permits, licenses, and government fees.
- 8.6 Unless specifically indicated otherwise, Contractor is responsible to hire and pay for all third-party reviews and inspections required by authorities having jurisdiction, including but not necessarily limited to third party energy code inspection, if such is required.
- 8.7 Give required notices.
- 8.8 Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of work.
- 8.9 Contractor shall use every precaution to prevent damage to roads, landscape, adjacent property, building and utilities above and below ground that are adjacent to or included in the area under contract. The Contractor shall repair and replace, at his expense, any material or building affected, damaged or destroyed because of his operations or work.
- 8.10 Safety Requirements: The CONTRACTOR has full responsibility for the safety of workers and for all damages to personal property caused by its operations. The CONTRACTOR is responsible for following all Federal, State, and Local Regulations and Guidelines with regards to worker and public safety. Unless otherwise indicated on the proposal, the necessary tools, equipment, procedures, etc. for following the appropriate regulations and guidelines will be considered subsidiary to other proposal items.

9.0 PHASED CONSTRUCTION

- 9.1 The Work shall be conducted in phases. It is anticipated that the Contractor shall conduct operations in a manner that closes only one building opening at any time to the Fire Department's use, and that the area of the apparatus bay taken or partitioned off for the Contractor's operations shall be kept to a minimum required to accomplish the work in order to maximize the Owner's use of the bays for ongoing operations. Contractor shall assume this phasing requirement in consideration of his bid, and any deviations from this phasing requirement must be prior approved by the Town of Addison General Services Department.
- 9.2 Contractor shall coordinate fully with the Town of Addison General Services Department and Fire Department to keep disruption to ongoing operations to the absolute minimum required to accomplish the Work.

10.0 ACCESS TO SITE

- 10.1 Use of Site: Limit use of Project site to work in areas indicated, and according to the phasing plan as approved by the Town of Addison General Services Department. Do not disturb portions of Project site beyond areas in which the Work is indicated and any areas as may be specifically approved by Owner for use in construction or staging use. Conduct construction operations in manner to minimize disruption to Owner's ongoing operations and use of occupied building and site.
- 10.2 Maintain access and fire lanes during construction as required by authorities having jurisdiction.
- 10.3 Limits Contractor's use of areas of the building to those under construction according to the approved phasing plan. Should Contractor believe additional area is reasonably necessary for construction operations and staging, Contractor may request additional

staging area for Owner's consideration and approval. However, Owner is not obliged to allow additional space on site to Contractor's use. Any additional space requested by Contractor and allowed to be used by Owner shall be returned to conditions existing prior to Contractor's use, at no additional cost to Owner.

- 10.4 Driveways, Walkways and Entrances: Keep driveways, parking areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials, except as specifically allowed and approved.
- 10.5 Schedule deliveries to minimize use of driveways and entrances by construction operations.
- 10.6 Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- 10.7 Condition of Existing Building: Maintain portions of existing building affected by construction operations in a secure condition throughout construction period. Repair damage caused by construction operations.
- 10.8 Full Owner Occupancy: With the exception of active construction areas per the approved phasing plan, the Owner will occupy the site and building during the entire construction period. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
- 10.9 Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

11.0 SUBMITTALS

- 11.1 Product Data: Indicate manufacturer's model number, technical data including description of components and static pressure/air flow chart, and installation instructions.
 - 11.1.1 Details of wiring for power differentiating between manufacturer-installed and field-installed wiring.
 - 11.1.2 Closeout Submittals: Operation and Maintenance data manual including spare parts list.
 - 11.1.3 Provide training to fire department personnel in the daily use and maintenance of the vehicle exhaust removal system that has been installed and specified herein. The fire department shall be notified at least 7 days prior to the date scheduled for the training course. Training shall be for all personnel involved with the operation of the exhaust removal system to include all shifts required to man the particular facility. The Training session shall be performed in person by a recognized representative of the manufacturer of the exhaust removal system, in addition a training DVD shall be provided to the fire department.
 - 11.1.3.1 Provide training to all shifts during their normal shift period.

12.0 WORK RESTRICTIONS

- 12.1 Work Restrictions, General: Comply with restrictions on construction operations. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- 12.2 Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner

or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

- 12.3 Notify Owner not less than two days in advance of proposed utility interruptions.
- 12.4 Obtain Owner's written permission before proceeding with utility interruptions.
- 12.5 Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
- 12.6 Notify Owner not less than two days in advance of proposed disruptive operations.
- 12.7 Temporarily discontinue noisy operations to the extent possible when there is a station alert or announcement over speakers, to allow first responders to hear announcements and respond to emergencies.
- 12.8 Dust Migration: Perform work in manner to minimize dust and dirt migration from construction areas into occupied spaces, and in particular into the living quarters. Provide adhesive walk off mats to control dust at times when construction personnel will be going back and forth to the electrical room, unless otherwise directed by the Addison General Services Department.
- 12.9 Nonsmoking Building: Smoking is not permitted on the premises including the entire site.
- 12.10 Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- 12.11 Comply with Owner's security requirements.

13.0 GENERAL COORDINATION PROCEDURES

- 13.1 Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
- 13.2 Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
- 13.3 Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart- type, Contractor's construction schedule within **22** days of date established for the Notice to Proceed. Base schedule on the startup construction schedule and additional information.

14.0 PROJECT MEETINGS

- 14.1.1 General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
- 14.1.2 Preconstruction Conference: Architect or Owner may schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than **15** days after execution of the Agreement.
- 14.1.3 Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
- 14.1.4 Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner, but no later than **15** days prior to the scheduled date of Substantial Completion.

15.0 QUALITY ASSURANCE

- 15.1 Owner Responsibilities: The Owner will hire and pay for tests and inspections, unless explicitly assigned to Contractor. Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged by Owner and a description of the types of testing and inspecting they are engaged to perform.
- 15.2 Costs for retesting and reinspection construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- 15.3 Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
- 15.4 Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- 15.5 Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- 15.6 The manufacturer must be a ISO 9001:2000 certified www.iso.org manufacturer with certification issued to a United States facility, this shows a commitment to delivering the highest quality service and products to the end user. Manufacturer shall be UL and CUL Certified www.ul.com/database/ and certified by the Air Movement and Control Association (AMCA) www.amca.org/search.htm to ensure quality, consistency and reliability of products. All certification documents shall be provided and attached to the bid proposal. No exceptions.
- 15.7 Retesting/Reinspection: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and
- 15.8 Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 30 days of date established for the Notice to Proceed.
- 15.9 Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.
- 15.10 Conduct conference at Project site. Review methods and procedures related to vehicle exhaust system installation.
 - 15.10.1 Review access requirements for equipment delivery.
 - 15.10.2 Review equipment storage and security requirements.
 - 15.10.3 Inspect condition of preparatory work performed by other trades.
 - 15.10.4 Review structural loading limitations.
 - 15.10.5 Review that all components specified in this Section and related components specified in other Sections are accounted for.

16.0 PROPOSING

16.1 Proposers are instructed to consider the following factors in preparation of your proposal:

- a. Proposals shall remain firm for a period of 60 calendar days after the scheduled bid opening.
- b. Proposers are instructed to include all necessary charges, related to this proposal.
- c. All costs incurred in responding to the RFP shall be the responsibility of the entity submitting the proposal.
- d. The contract will be governed by the laws of the State of Texas. Venue shall be exclusively in Dallas County.

16.2 Proposers shall mark any information, which is a trade secret or confidential, as "CONFIDENTIAL" on each page. Pricing of goods and services is not considered as confidential information. Proposals shall be opened so as to avoid disclosure of contents to competing proposers. The contents will not be disclosed during the process of evaluation, revision, and negotiation. All proposals shall be open to the public after contract award, except for information marked "confidential."

17.0 AWARD OF CONTRACT

17.1 The Town of Addison reserves the right to reject any or all proposal, reject any particular item on a proposal and to waive immaterial formalities.

17.2 The General Services Department will evaluate all qualifying proposals. All requirements in this RFP must be satisfied to ensure that the proposal will qualify for consideration.

17.3 The Town of Addison requests that only qualified firms submit proposals. Proposals from unqualified firms or proposals that fail to address all requirements listed in this RFP will be rejected.

18.0 PROPOSAL FORMAT

To assure consistency, proposals must conform to the following format:

Introduction

This section should contain your understanding of the Town's needs and objectives.

Descriptive Literature

Describe, in detail, the system you propose to install in each building, if the two buildings are a connected or independent system and your recommendation and reasoning. Provide complete descriptive literature for the substantial items in the system. Include a detail list of the scope of work to be performed. Outline the timeframe you propose to complete the project. Note any equipment that you intend to reuse, if any, from the existing system.

References

This section shall contain names of at least five organizations, most preferable local governmental entities for which you have provided a similar system. Please include organization name, address, telephone number and contact person.

Current and previous clients of any firm that submits a proposal may be approached with specific questions regarding vendor's performance and reliability. Responses to these questions will be considered in the evaluation process.

Fee Structure

Provide a fee schedule for your services. Include in this fee schedule a cost for two independent systems.

Contract

Enclose a copy of your standard contract. Indicate any clause(s) that are conditional or non-negotiable.

17.0 INSURANCE REQUIREMENTS

17.1 See attached.

17.2 Contractor shall provide the following endorsements:

- a. The Town shall be named as an additional insured with respect to general liability, automobile liability coverage. Named insured wording which includes the Contractor and the Town of Addison with respect to general liability, automobile liability.
- b. All liability policies shall contain no cross-liability exclusions or insured versus insured restrictions and severability of interest clauses.
- c. A waiver of subrogation in favor of the Town of Addison shall be contained in the workers compensation, and all liability policies with respect to the worker's compensation insurance and all other insurance policies
- d. The policy shall be endorsed to require the insured to immediately notify the Town of Addison of any material changes in the insurance coverage.
- e. All insurance policies shall be endorsed to the effect that the Town will receive at least thirty (30) days' notice prior to cancellation or non-renewal of the insurance.
- f. All insurance policies, which name the Town as an additional insured, must be endorsed to read as primary coverage regardless of the application of other insurance.

- g. Required limits may be satisfied by any combination of primary and umbrella liability insurances.
- h. Contractor may maintain reasonable and customary deductibles, subject to approval by the Town.
- i. Insurance must be purchased from insurers that are financially acceptable to the Town.
- j. The Town shall be named as a joint loss payee in the builder's risk policy.

17.3 All insurance shall be purchased from an insurance company, which meets the following requirement:

- a. Must be issued by a carrier, which is rated "A- " or better by A.M. Best's Key Rating Guide.
- b. Licensed and admitted to do business in the State of Texas and is a subscriber to the Texas Guaranty Fund.

17.4 All insurance must be written on forms filed with and approved by the Texas State Board of Insurance. Certificates of insurance shall be prepared and executed by the insurance company or its authorized agent and shall contain provisions representing and warranting the following:

- a. The company is licensed and admitted to do business in the state of Texas.
- b. The Texas State Board of Insurance has approved the company's forms.
- c. Sets forth all endorsements as required above.
- d. The Town of Addison will receive at least thirty (30) days' notice prior to cancellation or termination of insurance.

18.0 NON-DISCRIMINATION POLICY

18.1 It is the policy of the Town of Addison to afford all people an equal opportunity to bid or propose on any contract being let by the Town.

18.2 The Town of Addison has a policy that prohibits discrimination against any person because of race, color, sex, or national origin, in the award or performance of any contract.

18.3 The Town of Addison will require its employees, agents, and contractors to adhere to this policy.

19.0 PAYMENT FOR SERVICES

19.1 All invoices shall be address to:
Town of Addison, Accounts Payable
P.O. Box 9010
Addison, Texas 75001-9010
Attention: General Services- Fire Station Vehicle Exhaust Removal and Filtration System: Addison Central Fire Station and Fire Station 2.

- 19.2 Payment from the Town of Addison for work performed in accordance with the Agreement shall be due thirty (**30**) days from receipt of the monthly invoice, as provided for by State law.
- 19.3 Rights of Withholding: The Town reserves the right to withhold any payment or partial payment otherwise due the Contractor for any unsatisfactory performance or damage by the Contractor. This amount shall be withheld until such work is corrected.
- 19.4 Acceptance of Payment: The acceptance of each monthly payment by the Contractor shall constitute a waiver of all claims, of any nature, by the Contractor against the Town.
- 19.5 Ten-percent (**10%**) retainage shall be withheld until **40** days after Final Completion and acceptance. All warranties and guarantees shall commence from the date of the final acceptance. No interest shall be due the Contractor on any partial or final payment, or on the retainage.
- 19.6 If the Contractor fail to complete the Work within the time specified in the contract, the Contractor shall pay liquidated damages to the Town of Addison in the amount of \$500 for each calendar day of delay until the Work is completed or accepted. The liquidated damaged will be applied for the overall project completion schedule.

20.0 BONDS

- 20.1 Bids shall be accompanied by a bid bond in an amount not less than five percent (5%) of the total maximum bid price from a reliable surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties, or a Binder of Insurance executed by a surety company licensed by the State of Texas to act as a surety or its authorized agent as a guarantee that the bidder will enter into a contract and execute a Payment Bond, Performance Bond and Maintenance Bond within ten (**10**) days after notice of award of contract to bidder.
- 20.2 A Performance Bond, Payment Bond and Maintenance Bond will be required by the Owner; each bond shall be in the amount of 100% of the total contract amount. Bonds shall be issued by a surety company licensed by the State of Texas to act as a Surety and be listed on the current U.S. Treasury Listing of Approved Sureties.

CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF REQUEST FOR PROPOSAL / EXCEPTIONS

I have read, understand, and agree to comply with the terms and conditions specified in this Request for Proposal.

Checking "YES" indicates acceptance of all terms and conditions, while checking "NO" denotes non-acceptance and vendor's exceptions should be detailed below. In order for any exceptions to be considered they MUST be documented.

YES _____ I agree. NO _____ Exceptions noted below:

Signature _____
Contractor/Proposer

Date _____

Print Name _____
Contractor/Proposer

Title _____

EXCEPTION SUMMARY FORM

RFP SECTION #	RFP PAGE #	EXCEPTION (Provide a Detailed Explanation)

REFERENCE LIST

(Enclose in a sealed envelope marked "Reference List – Confidential")

Minimum five (5)

<u>NAME OF ORGANIZATION</u>	<u>CONTACT NAME</u>	<u>PHONE #</u>	<u>SQ. FEET</u>	<u>TYPE*</u>
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1.

2.

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9.

10.

PROPOSED SCOPE OF WORK

(Attach proposal and fees)

Location 1

Central Fire		\$
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Location 2

Fire Station 2		\$
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RFP #20-08 Fire Station Vehicle Exhaust Removal and Filtration System: Addison Central Fire Station and Fire Station 2.

INSURANCE REQUIREMENT AFFIDAVIT

To be completed by appropriate insurance agent

I, the undersigned agent, certify that the insurance requirements contained in this bid document have been reviewed by me with the below identified vendor. If the below identified vendor is awarded this contract by the Town of Addison, I will be able, within ten (10) days after being notified of such potential award, to furnish a valid insurance certificate to the Town meeting all of the requirements contained in this bid.

Agent's Signature

Agent's Name Printed

Name of Insurance Carrier

Phone Number of Agent

Address of Agency

City, State, Zip

Vendor's Name

SUBSCRIBED AND SWORN to before me by the above named _____

on this _____ day of _____, 2019.

Notary Public

Note to Proposer:

This form cannot be submitted with your proposal as it must be completed by your insurance agent. Fax this form to your insurance agent and have them fax it to the Town of Addison at 972-450-7065. This form must be received by Purchasing before or within 48 hours of the bid closing date.

Note to Agent:

If this time requirement is not met, The Town of Addison has the right to declare this vendor non-responsive and award the contract to the next lowest responsible bidder meeting the specifications. If you have any questions concerning these requirements, please contact the Purchasing Manager at 972-450-7091.

**SAMPLE FORMS
ATTACHED;**

(PAGE LEFT BLANK)