



## MEMORANDUM

**To:** Mayor and City Council

**From:** Christa Christian, Facilities Manager  
Kent Collins, P.E., Director of Public Works

**Date:** September 10, 2019

**Reference:** HVAC Renovations to Fire Station 2

**2030:** Sustainable City Government, Goal 3  
Excellent and Well-maintained City Infrastructure and Facilities

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### General Information:

- Fire Station 2 Facility constructed in 1997.
- Existing systems are original and at end of life.
- Project total is \$183,275.00.

### Introduction:

This agenda item is being presented to consider approval of National Intergovernmental Purchasing Alliance Proposal #NIPA R150501-TX-19687 for HVAC renovations to Fire Station 2, located at 366 MacArthur Boulevard, in the amount of \$183,275.00; as budgeted and authorizing the City Manager to sign any necessary documents. National IPA contracts are awarded through a Request for Proposal (RFP) competitive solicitation by a public agency or a governmental entity. Additional information about National IPA and the contracting process is attached. Further information can be found at [www.nationalipa.org](http://www.nationalipa.org).

### Analysis:

Fire Station 2 was constructed in 1997, the equipment is original to the facility and does not meet current code. Additionally, the existing system is residential and not capable of maintaining the temperature or proper humidity control. The primary issues with the current system are:

- Haphazard installation of the air handlers, ductwork, and lines due to the space constraints in the attic. All units are difficult to access for maintenance and some ductwork and lines cannot be properly sloped or insulated. Poorly insulated ductwork and drainage issues have led to increased moisture levels.

- Inadequate ventilation compromises air quality and the limited air space around the air handlers results in an additional load for the units as they operate in a hot environment.
- The existing system is residential style units that are not capable of maintaining the low temps in the sleeping quarters and the proper humidity control for the station.
- There is no energy management system or controls to help regulate, controls or assess the systems.

TD Industries, the City's current HVAC vendor, conducted a thorough investigation of the Fire Station. The recommendation is to install a variable volume refrigerant system that changes with the loads in the facility with a variable speed technology. The new "VRF" system will be set up as a heat pump arrangement, enabling the units to heat in the winter months. This eliminates the need for the existing gas fired units. The system will also incorporate a "dedicated" outside air unit that will "condition" 100% outside air and introduce it into the space as a "neutral" air temperature, helping with continuous air changes in the building, further eliminating odors.

The work will be performed during normal business hours and will not displace the facility tenants. The equipment will consist of 17 new, one-way, flush mount and wall mount air handlers and three (3) condensing units. When the new VRF system is online, phase two includes the demolition of old duct work and air handlers in the attic space. Once demo is complete, phase three is the installation of a new dedicated outside air handler, which will introduce outside air into the facility, condition it, and circulate it throughout resulting in better air quality.

The project will be complete in approximately four weeks.

**Legal Review:**

N/A.

**Fiscal Impact:**

The fiscal impact of the agenda item is a total of \$183,275.00, as budgeted.

**Recommendation:**

The Public Works Department recommends approval of the National IPA proposal with TD Industries for the HVAC Renovations to Fire Station 2.