



MEMORANDUM REPORT

Meeting Date: July 28, 2020

TO: Board of Commissioners of the Los Altos Hills County Fire District

FROM: J. Logan, General Manager

SUBJECT: LAHCFD Fire Hydrant Repair, Replacement, and Inventory Projects

RECOMMENDATION:

Receive Report and provide direction to staff on LAHCFD Fire Hydrant Repair, Replacement, and Inventory Projects.

BACKGROUND

Currently the Los Altos Hills County Fire District (District) owns 540 hydrants. Over the years the District made large capital investments in hydrant replacements and hydrant hardware such as water valves and laterals that are used to connect the hydrant to Purissima Hills Water District (PHWD) water main infrastructure.

The 540 hydrants and hardware are all within PHWD. This arrangement dates back to 1956 when PHWD began work on installation of a water distribution system to furnish water within its boundaries. At the same time, the Fire District sought to install hydrants to make water from PHWD's mains available for fire protection. PHWD and the County of Santa Clara Board of Supervisors, on behalf of the Fire District, entered into an agreement on October 29, 1956, to allow the Fire District to attach fire hydrants to the PHWD's water mains. Under the terms of the 1956 Agreement, the Fire District owns the hydrants and is responsible for keeping the hydrants in good repair. "Hydrants" include "all connections, valves, pipes, and fittings.

In August 1980, the PHWD and Santa Clara County Board of Supervisors, on behalf of the Fire District, entered into another agreement to formally "specify their respective rights and obligations in connection with the provision of those water-related services that are necessary for fire protection purpose." At that time, the Fire District owned approximately three-hundred-fifty (350) fire hydrant facilities connected to the PHWD's water distribution system. Since that time, an additional one-hundred ninety (190) hydrants have been installed by the Fire District and connected to the PHWD's water distribution system. The Agreement, which is still in effect today, requires the Fire District to ensure proper operation of the hydrants, including ensuring consistency with good water works and fire protection practices. The PHWD is not liable or responsible for failures in the operation, maintenance, testing, replacement or removal of hydrants, except when arising out of the fault or neglect of the PHWD. Hydrants include the connections, valves, pipes, and fittings appurtenant to the hydrants.

DISCUSSION

The District is responsible for repair and replacement of damaged hydrants and assists with hydrant locations. At the June 16, 2020 Commission meeting, the Board of Commissioners approved a Professional Services Agreement with Freyer & Laureta, Inc. (F&L) for on-call Engineering Consultant, Jeff Tarantino and staff to provide fire hydrant services to the District. Services were contracted because of multiple fire hydrant damages caused by vehicle mishaps and resulting delays in the assessment of the damages and determination of the repairs. The hydrant replacements required engineering work plans for coordination with contractor, geotechnical engineering services for soil erosion repair and resolution of questions regarding placement of a retaining wall.

On June 30, 2020 a fire hydrant on La Paloma Road was struck by a vehicle. With the assistance of the on-call Engineering Consultant, immediate assessment of damage and plans for repair were initiated. The hydrant repair was completed on July 17, 2020. This result demonstrates greater efficiency and a more expedient timeline than the prior hydrant strikes that took months to assess and repair.

In addition to hydrant damage issues, road repaving projects and water main construction projects require removal and replacement of District hydrants. The construction requires staff to identify District owned valves and markers that are removed and replaced. The District enters into construction agreements for these services and coordinates efforts with Town of Los Altos Hills and the water purveyors. As a result of these ongoing construction projects, the District plans to develop a project to assemble a hydrant equipment inventory and utilize GIS technology to identify locations of the equipment assets.

As a result of these various incidents and need to establish hydrant assessments and operations, a series of projects are recommended that involve assignment to F&L and on-call Engineering Consultant, Jeff Tarantino.

Establishment of Fire Hydrant Assessments and Operations.

1. Project Management by F&L to conduct a Request for Qualifications (RFQ) process and establish a list of on-call fire hydrant contractors for emergency services. We are working on a process wherein contractors can qualify and bid for emergency hydrant repair work for the District. Establishment of an on-call contractor list for emergency services would significantly reduce the time to repair and replace damaged hydrants.

The RFQ project planning commenced on July 13, 2020 under the terms and conditions of the June 16, 2020 Agreement between the District and F&L. Staff will work with F&L to establish a process and report back to the Commission at a future meeting with a recommended process.

2. Inventory Project to be conducted by F&L to identify and record the infrastructure equipment owned by the District that attaches to District fire hydrants and PHWD infrastructure. District owns valves on each of the 540 hydrants off the tee and owns the laterals in certain locations. F&L staff will work with PHWD and Pakpour Consulting Group to identify and record District owned valves, laterals and equipment. Demonstration of hydrant infrastructure and equipment that is underground was presented to the group that met on July 9, 2020 at the PHWD Maintenance Yard.

The hydrant inventory will be utilized when hydrants and attached equipment the District owns are damaged, repaired, replaced or relocated.

3. Additional projects within the Scope of the District and F&L Agreement to include GIS data collection, analysis and mapping of hydrants and equipment
4. Project to review and report on three fire hydrant standard details used by PHWD for District fire hydrant operations. This collaboration on the fire hydrant standard details is at the request of PHWD
5. Project to assess and report to the Commission on identified sections of pipe adjacent to the Concepcion Road Water Main Replacement Capital Project scheduled for design phase

On July 9, 2020 District staff Logan and Gluhan, Commissioners Price and Spreen, Engineering Consultant Tarantino meet at the PHWD Maintenance Yard with PHWD staff and Engineer, Pakpour for a demonstration of the fire hydrant infrastructure. The purpose of the meeting was to demonstrate the interrelations of the District and PHWD for fire flow of water for firefighting and potable water delivery to water utility customers. The underground pipeline infrastructure was demonstrated and displayed both purposes. Inspection and repair of hydrants damaged by vehicle strikes were explained in the demonstration of the equipment. Designation of the equipment owned by District and by PHWD and its interconnectivity was demonstrated and discussed. As a result of the instructive information, the group recommended that a summary of the demonstration be video-recorded for presentation to the District Board of Commissioners and for posting on the District website for education and outreach to residents and the public.

Subsequently, a videographer was retained, and the demonstration was repeated for a video shoot to be produced in three video segments and presented at a future Commission meeting. The video will be posted to the District website and available for District workshops and public education and outreach. The videos will demonstrate the operations of District hydrant and equipment used for firefighting, fireflow and fire protection.

Summary.

The District 540 hydrants are now under assessment and inventory. Repair and replacement processes are being established as SOPs (Standard Operating Procedures). In the event of future hydrant damages, on-call Engineering Consultant, Jeff Tarantino, and staff from F&L will be immediately available to assess necessary repairs and instruct the contractor. A process to qualify contractors and bid emergency repair services will be developed and reported back to the Commission at a future meeting. Hydrant parts and equipment owned by the District will be identified and recorded with GIS technology and applications. Video segments explaining hydrant and equipment operations are being produced. At the conclusion of these projects, the District will have established an operational system for its 540 fire hydrant assets and video productions for community outreach and education.

To continue the project momentum and avoid delay between meetings, Agenda item 13, recommends that the District increase the not to exceed amount in the Agreement between the District and F&L from \$30,000 to \$45,000. F&L projected budget is attached, (Attachment 1).

RECOMMENDATION:

Receive Report and provide direction to staff on LAHCFD Fire Hydrant Repair, Replacement, and Inventory Projects.

Attachment(s):

1. F&L Projected Project Budget



Civil Engineers - Surveyors - Construction Managers

LOS ALTOS HILLS COUNTY FIRE DISTRICT: Budget Review Table

JULY 28, 2020

F&L Project #.	F&L Project Name	Expenditures to Date	Projected Budget To Complete	Total Projected Costs
306001	On-Call Engineering Services	\$545.00	\$0.00	\$545.00
306002	Zappettini Court Fire Hydrant	\$300.00	\$350.00	\$650.00
306003	Horseshoe Lane Fire Hydrant	\$300.00	\$1,350.00	\$1,650.00
306004	Review of Standard Details	\$460.00	\$500.00	\$960.00
306005	La Paloma Road Fire Hydrant	\$450.00	\$0.00	\$450.00
306006	On-Call Contractor RFQ	\$2,570.00	\$10,690.00	\$13,260.00
TBD	PHWD Project Review	\$0.00	\$5,000.00	\$5,000.00
Total		\$4,6525.00	\$17,890.00	\$22,515.00

Jeffrey J. Tarantino, P.E.



Civil Engineers - Surveyors - Construction Managers

Phone: (415) 534-7070