



DATE: October 18, 2016
TO: Mayor and City Council
FROM: Director of Public Works

SUBJECT

Fire Stations 1-6 and Fire Training Center Improvement Project Update

RECOMMENDATION

That Council reviews this report and comments on the design and program plan for the Fire Stations 1-6 and Fire Training Center Improvement Projects.

BACKGROUND

On June 3, 2014, voters approved Measure C which authorized the City of Hayward to increase the sales tax rate in the City by one-half cent for twenty years to restore and maintain City services and facilities, including firefighting/emergency medical services; improving police services to neighborhoods; replacing the aging library with a 21st century facility; repairing potholes and streets; updating aging neighborhood fire stations; and other City services. On October 10, 2014, City consultant, RossDrulisCusenbery (RDC), completed a facility needs assessment report for Fire Stations 1-6 and the Fire Training Center, and determined that substantial upgrades are needed in these aging facilities. On May 26, 2015, Council authorized the City Manager to execute professional services agreements for final design services with RDC Architecture and for project management services with Kitchell. Since design work began, the project has proceeded through several design phases including the completion of the design development phase for Fire Stations 1-5 and the master planning of Fire Station 6 and the Fire Training Center.

DISCUSSION

Fire Stations 1-6

Fire Station 1 is a two-story 14,780 square foot building constructed in 1995. This station serves the downtown area. Fire Station 2, located on West Harder Road, is a 4,795 square foot building constructed in 1958, which serves commercial and residential neighborhoods. In 1995, an addition was made to the station to house the department's fire extinguishing maintenance and filling room. This station also has a separate building for the maintenance and repair of the department's self-contained breathing apparatus equipment. Fire Station 3, on Medinah Street, is a 3,465 square foot building constructed in 1956 that serves the

commercial and residential neighborhoods in South Hayward. In 1995, an addition was made to house the department's radio repair and maintenance room. Fire Station 4, located on Loyola Avenue, is a 3,460 square foot building constructed in 1956 and serves central Hayward. In 1995, an addition to this station was made to provide an additional office area and washroom. Fire Station 5, located on Skyline Drive, is a 3,950 sf building constructed in 1975. The station was renovated in 2002 to add a ladder maintenance shop and a weight room.

Providing safe fire stations for the occupants and the public is one of the City's top priorities. The first priority is seismic retrofit of these stations to meet the life safety structural performance level such that the buildings will be strengthened to prevent collapse and to prevent loss of life in a seismic event. Fire Stations 1 through 5 will need structural upgrades that include reinforcement of exterior and interior walls. Fire Stations 1 and 2 will have additional seismic performance level such that, after a seismic event, these stations will retain their strength and be safe to occupy. Additionally, Fire Stations 1, 2 and 4 are in a liquefaction zone which requires modification to the existing foundation to mitigate liquefaction-induced settlement. The older Fire Stations 2 through 5, which were built before the 1970s, will require abatement of material containing asbestos and lead. Other safety improvements at the stations will include: vehicle exhaust system upgrades; adding an extractor to clean contaminated turnout gear; and separation of exhaust fumes in the apparatus bay from sleeping quarters.

Renovation for these stations are also needed to improve energy efficiency. Fire Station 1 upgrades include changing the internal and exterior light fixtures to LED. The older Fire Stations 2-5, in addition to the new LED light fixtures, will also include attic and wall insulation, new doors, new double pane windows, new skylights and HVAC replacement. Finally, Fire Stations 2-5 will have photovoltaic panels added on the roof for additional energy efficiency. These "green" improvements will offset approximately 70% or more of the existing energy consumption. Photovoltaic panels are not currently included as part of the renovation for Fire Station 1 because the building is already energy efficient with newer windows and insulated walls. Additionally, due to the limited space taken by mechanical equipment on the roof, photovoltaic panels will need to be installed over new carport structures. This is estimated to cost an additional \$350,000, which staff will ask Council to consider at a future date if funds become available.

Fire Stations 1-5 include improvements for quicker response time. All stations will have improvements to the station alerting systems. The existing overhead sectional exit apparatus doors will be replaced with faster operating, low-maintenance four-fold doors. Lastly, for Fire Stations 1-4, GPS-based traffic signal pre-emption systems will be added to the stations and at the traffic signal on street intersections near these fire stations. Fire Station 5 does not require this system because there are no nearby signalized intersections.

Other improvements will include making upgrades to each building to comply with ADA accessibility requirements in the areas of renovation, including upgrades in the showers and washrooms. Other renovation work will include casework replacement in the office area. Kitchens will also be renovated with new appliances and counter tops. The walls and floors

will be replaced. Finally, utility upgrades, including replacing old sewer, water, gas and electrical panels will be made.

Because of the extensive hazardous material abatement and renovation, the work will be disruptive to the crews working within the stations. Therefore, temporary housing arrangements will have to be made for the various stations. Construction at Fire Stations 1, 2, 3 and 5 will start at about the same time. During construction, Fire Station 2 fire personnel and apparatus will be temporarily housed at the larger Fire Station 6. Fire Station 3 fire personnel and apparatus will be temporarily housed at the new Fire Station 7. Fire Stations 4 and 5 are further from other fire stations and will need to be temporarily housed in other locations with trailers and shelters in order to keep the response time delays to a minimum. After renovation work is completed at Fire Station 5, the crew trailer and apparatus shelter will move to the temporary Fire Station 4 location and be made available for the personnel, and then renovation work can begin at Fire Station 4.

Fire Station 6 is located in West Winton and serves the industrial area. Being adjacent to the Hayward Executive Airport, it also houses the Aircraft Rescue and Fire Fighting (ARFF) unit. Construction of the new Fire Station 6 will be included as part of the Fire Training Center, discussed below.

Fire Training Center

Located on West Winton Ave and adjacent to the Hayward Executive Airport, the current Fire Training Center consists of a collection of structures and training facilities assembled over the past forty years. The facility consists of four main buildings, a four-story training tower, a classroom building, a burn building, and a storage building. The facility also includes a fire apparatus driver training course, inclined training surface, and an engine water test flow. This facility provides firefighting survival, rescue training, continuing training and education for new recruits, department personnel and fire science colleges. These facilities are antiquated and generally dilapidated.

The wood framed training tower was originally built in 1958 at Fire Station 2 and moved in 1975 to its current location. While the tower is still actively used, it is in poor condition. Similarly, the classroom building was a refurbished building built in 1960 and reassembled at the existing site. This building is in poor condition and is not compliant with current accessibility requirements, but continues to serve as offices for the training center, classroom, simulation room for training functions, and lockers and washrooms used by staff and trainees. The storage building for training equipment also serves as an office, staff break room, and the volunteer radio coordination room. It is recommended that this building be replaced with a facility to store reserved vehicles. The burn building constructed in 1975 is also in poor condition and is recommended to be replaced. The apparatus driver training course, inclined training surface, and engine water test flow will also need to be replaced.

In April 2016, staff and the City consultant visited the Fort Worth Public Safety Complex designed by RDC's consultant team, Abercrombie Planning + Design, to see firsthand the facility and which elements could or should be incorporated into Hayward's Fire Training Center. One of the key observations was creating a layout designed to allow for multiple

groups to use the facility simultaneously. The proposed layout of the City's new Fire Training Center will allow multiple classes to be conducted concurrently while maintaining the day-to-day operations of Fire Station 6 and the ARFF unit.

The new Fire Station 6 and Fire Training Center are proposed to be built in phases (Attachment II):

Phase 1

- New Fire Station 6 will have the capacity to house two fire companies with apparatus bays for one engine, one truck and the active ARFF unit, and offices on the first floor and sleep rooms, restrooms, day room, kitchen and dining rooms on the second floor.
- Attached to the new Fire Station 6 will be a two story building for the main lobby, administration offices, classrooms, simulator rooms, conference rooms and restrooms.
- Four story mixed use commercial style propane-fed Class B burn building to conduct live exercises.
- Two-story Victorian, residential style wood/hay fed Class A burn building.
- Supply storage building.
- Apparatus storage and service structure including turnout rooms and restrooms.
- Apparatus driver training course.

Future phase

- Aviation hanger training structure
- Urban search and rescue training structure
- Outdoor classroom building
- Elevated BART station training structure
- Flash over fire training

The proposed Fire Training Center will serve the ever growing training needs of the department, and potentially other agencies that travel long distances to other locations for training that is not currently available in the Bay Area. Traveling to other training centers is expensive and time consuming. The full build out would include every structure shown in the above Phase 1 plus the future phase components. This would make an ideal training center but is currently cost prohibitive. The department is seeking partners to generate additional funding for the full build out. Currently, the proposed project includes only the Phase 1 components.

Because the Fire Training Center is located on airport property, the project requires FAA approval. Staff met with FAA to introduce the project. FAA has concerns that the improvement project contains non-aeronautical elements. At a minimum, FAA is requiring an update of the Airport Layout Plan and submittal of FAA Form 7460 Notice of Proposed Construction or Alteration. Staff is currently working on providing those documents.

FISCAL AND ECONOMIC IMPACT

The project will be entirely funded by Measure C funds. The estimated project costs are as follows:

Fire Station 1-5	
Construction	\$7,150,000
Design	\$650,000
Temporary Housing During Construction	\$300,000
Other Cost (OFOL, Fixture, Furniture & Equipment)	\$1,400,000
Construction Administration, Inspection and Testing	\$1,000,000
Fire Station 1-5 Project Total	\$10,500,000

Measure C, as shown in the FY17 Capital Improvement Project, includes adequate funding for the Fire Stations 1-5 renovation project. After bids are received, staff will update the project cost and adjust the budget as necessary.

Fire Station 6 & Fire Training Center	
<u>Construction</u>	<u>\$30,500,000</u>
<u>Design</u>	<u>1,800,000</u>
<u>Temporary Housing</u>	<u>\$500,000</u>
<u>Other Cost (OFOL, Fixture, Furniture & Equipment)</u>	<u>\$2,000,000</u>
<u>Construction Administration, Inspection, Testing</u>	<u>\$3,200,000</u>
Fire Station 6 & FTC Total	\$38,000,000
Combined Project Total	\$48,500,000

Measure C, as shown in the FY17 Capital Improvement Project, includes funding for Fire Station 6 and the Fire Training Center. However, with the current level of design and cost estimate, there is a shortfall of \$10,000,000. This shortfall is due to increases in project cost with items that were added, such as expanded site improvements, street improvements for better access to the facility, demolition of existing Fire Station 6, a structurally enhanced building to serve as an Emergency Operations Center, training props, and systems for Net Zero Energy buildings. When further detailed level of design and cost estimates are provided, staff will update Council, including a plan to close the shortfall.

SUSTAINABILITY FEATURES

1. Water: Water efficient plumbing fixtures.

The project includes the installation of water efficient plumbing fixtures to reduce water consumption.

2. Environment: Bay-Friendly Landscaping & Storm Water Treatment.

This project will implement Bay-Friendly Landscaping techniques to use native plants and climate appropriate plants at the Fire Stations and at the Fire Training Center.

This project will install bio-swales at the Fire Training Center to treat storm water runoff from the pavement and filters pollution from the storm water before entering the San Francisco Bay.

3. Energy: Replace windows, installation of LED lighting, skylights, and PV panels.

This project will install energy efficient windows, LED lighting, skylights, and PV panels providing electricity and maintenance cost savings.

SCHEDULE

Fire Stations 1-5 Renovation

Complete Design	December 2016
Begin Work	April 2017
Complete Work	April 2018

New Fire Station 6 and Fire Training Center

Complete Design	February 2018
Begin Work	July 2018
Complete Work	November 2019

Prepared by: Yaw Owusu, Assistant City Engineer

Recommended by: Morad Fakhrai, Director of Public Works

Approved by:



Kelly McAdoo, City Manager