ITEM 9.D.

MOORPARK CITY COUNCIL
AGENDA REPORT

TO: **The Honorable City Council**

FROM: **Jeremy Laurentowski, Landscape and Parks Manager** JL

DATE: **February 8, 2013 (CC Meeting of March 6, 2013)**

SUBJECT: **Consider Painting the California Highway Patrol Leased Space at the Police Services Center and the Exterior of Arroyo Vista Recreation Center; Installing Three Phase Power and Upgrading the Sewer Lift Station Pumps at Arroyo Vista Community Park; Installing a Variable Frequency Drive Irrigation Booster Pump System at Arroyo Vista Community Park; Replacing the Basketball Court Backboard System and Bleachers at the Arroyo Vista Recreation Center Gym; and Resolution Amending the Fiscal Year 2012/13 Budget by Appropriating $220,455 from the General Fund Reserve**

DISCUSSION

Painting the California Highway Patrol Leased Space at the Police Services Center and the Exterior of Arroyo Vista Recreation Center:

The California Highway Patrol (CHP) leased space at the Police Services Center is in need of painting. The lease Agreement between the City of Moorpark and the CHP was executed on November 1, 2005. Under the Painting sub-section of the Agreement, Item no. 15 states the following: In no event shall the Lessor be required to repaint more than once during the first sixty (60) month period of the lease after the painting completed prior to the commencement date, and once during any succeeding sixty (60) month period. The CHP has occupied the lease space within the Police Services Center, located at 610 Spring Road, for approximately eighty-six months and has requested that the City paint the interior of their lease space per the Agreement.

In addition, the three exterior vehicular access gates at the Police Services Center are in need of painting. The gates were originally painted during the construction of the Police Services Center in 2004 and have started to weather and peal. Staff

recommends stripping the gates, applying one coat of exterior primer appropriate for galvanized steel applications, and repainting the gates with an exterior enamel.

The exterior of the Arroyo Vista Recreation Center is also in need of painting. The painted areas consist of the doors, downspouts, window frames, the metal trim around the roof eaves and gutters, and the covered porticos that extend between the gym and recreation center buildings. The roof eaves were repainted in 2007. The remaining painted surfaces have not been repainted since the recreation center was built in 1993.

Staff has obtained quotes for the above painting services and has determined that a total cost to complete this work is $24,955:

California Highway Patrol Interior Painting		$7,400
Police Services Center gates		$4,800
Arroyo Vista Recreation Center Exterior Painting		$9,500
	Sub-total	$21,700
	15% contingency	$3,255
	Total	$24,955

Installing Three Phase Power and Upgrading the Sewer Lift Station Pumps at Arroyo Vista Community Park:

The sewer lift station at Arroyo Vista Community Park (AVCP) is located on the north side of the park entrance, across from the memorial apricot orchard. The lift station services the two restroom facilities and concession buildings within the park grounds, as well as the Recreation Center buildings. Currently, a 100 ampere (amp), 120/240 Volt (V), single phase electrical service is provided for the sewer pumps, which consist of two, 3 horse power (hp) macerator pumps. One pump is designed to run as the primary pump and the second is a backup pump in case of a high flow situation, such as during an obstruction or malfunction with the primary pump. However, since 2010, there have been three separate instances when the backup pump has failed to respond to a high flow alert. Two instances were due to additional obstructions and one instance was due to a defective relay switch that failed to activate the backup pump. The lift station is located approximately one hundred feet from the Arroyo Simi and in all occurrences staff has been required to perform emergency response procedures. Emergency procedures include quarantining the area around the lift station, shutting down all restrooms facilities, providing portable restrooms during regular use periods, building a berm to control effluent if needed and resulting hazardous material removal procedures. In an effort to minimize emergency response procedures, staff physically verifies that the primary and secondary pumps are functional every Saturday, Sunday and Wednesday morning. In addition, the City's contract alarm monitoring company (Bay Alarm) has installed an alarm system that monitors the lift station's high flow switch. In the event that the high flow switch is activated, staff is notified that a trouble signal has been detected.

However, even with these early notification systems in place, staff feels that the current design of the lift station should be improved to further minimize system failures.

During high use periods, such as the July 3rd event or a large soccer tournament, the sewer lines that service AVCP could ultimately exceed the amount of storage space available within the sewer lift station's vault, even if all restroom and building facilities were immediately shut down once a trouble signal has been detected. The current design of the sewer lift station does not allow for immediate repair of the system, as blockages have to be manually cleared from the macerator pumps. This procedure has required lengthy down time in the past, as most plumbing companies do not have the necessary equipment to respond to these types of emergencies. Generally, a crane and specialized equipment is required to lift the pumps from the station vault to service them. In addition, staff has been informed that the macerator pumps are undersized for the amount of effluent that passes through the system during high use periods. Macerator pumps with more horse power will be able to clear larger obstructions than the current pumps can handle.

Staff has contacted several contractors that specialize in the construction of sewer lift stations and has been informed that a 100 ampere (amp), 120/240 Volt (V), three phase electrical service in conjunction with two 5 hp, three phase macerator pumps would be the preferred system for the lift station at AVCP. During a system failure, the three phase electrical system would enable staff to reverse the polarity of the pumps and back out an obstruction without having to physically service the equipment. The current single phase electrical system does not allow for this option and requires down time to service the system as described previously. Staff is confident that the proposed improvements, along with the notification systems already in place, would enable staff to respond to emergencies, repair obstructions without additional down time or threat of hazardous material spillage, and minimize future system failures.

Staff has obtained quotes for the proposed sewer lift station improvements at AVCP and has determined that a total cost to complete this work is $74,175:

Southern California Edison (three phase power)		$25,000
Electrical panel, material and labor		$7,500
(2) 5hp macerator pumps, material and labor		$32,000
	Sub-total	$64,500
	15% contingency	$9,675
	Total	$74,175

Installing a Variable Frequency Drive Irrigation Booster Pump System at Arroyo Vista Community Park:

The irrigation system that services Arroyo Vista Community Park receives water from two wells that were installed prior to the purchase of the park property. The park property was originally agriculture in nature and the wells were built to supply the property with irrigation water. Agricultural irrigation systems are simple in concept and generally consist of an irrigation booster pump that is designed to provide a fixed water supply at a fixed pressure. The two booster pump operating systems that control the irrigation water at AVCP were designed as such, and have not changed since the park was originally built in 1993. Each system currently provides approximately 350 gallons per minute (gpm) at a set pressure of 110 pounds per square inch (psi). Following the initial construction of the park, additional improvements have been made, such as the east side expansion in 2004, and the irrigation systems that services the park grounds were designed to accommodate the original booster pump system parameters. However, these parameters have proven to be problematic, as they do not allow for adequate scheduling of the irrigation system and have caused extensive damage to the irrigation system components and equipment.

Each of the existing well pumps at AVCP is a 40 hp, 480 V submersible booster pump that provides 350 gpm and 110 psi. However, the irrigation valves that have been designed to serve a particular turf or shrub area vary in overall size and demand. As designed, a typical turf irrigation valve requires approximately 40 to 70 gpm, and a typical shrub irrigation valve varies between 15 and 40 gpm. However, once a valve is turned on, the booster pump is activated and the system will provide the maximum available supply and pressure, regardless of the system requirements for a particular valve. As a result, many valves need to be scheduled to turn on and off simultaneously in order to release the back pressure on the irrigation system. Ideally, the irrigation valves need to equal as close as possible to a combined total demand of 350 gpm. If the system is not timed correctly, the irrigation mainline will fracture due to excessive back pressure and can cause extensive damage to the irrigation mainline. The existing irrigation mainline is 6" diameter polyvinyl chloride (PVC) and has been installed at a depth of approximately 4'. Repairs generally require heavy machinery to excavate the damage, and downtime of five to seven days is common. In addition, aging irrigation systems are generally only accurate to within 15% or 20% of their original design intent, and it has become increasingly difficult to manage the system and schedule the irrigation system without damaging the aging equipment. Over time, a 20% variance in actual demand can cause abnormal wear on the system and contribute to system failures.

Since 2011, staff has implemented a turf renovation program for the sport fields at AVCP, which generally consists of closing a large section of the park each year for a four month period. Typical turf renovation procedures include aeration, implementation of weed abatement procedures, fertilization, applications of sand to

improve drainage and re-seeding bare areas. During this time, irrigation use is generally increased and control over individual irrigation valves is crucial. However, due to the booster pump parameters, staff is required to run as many as seven irrigation valves at the same time, which has resulted in a mixed variety of field conditions. Many areas become flooded and overwatered, while others remain overly dry. However, as mentioned previously, the operating system does not allow for scheduling flexibility, as the system will become damaged if the back pressure on the system is not reduced.

Staff has contacted several booster pump manufacturers to discuss these issues and has discovered that the existing booster pumps are in adequate condition, as they were replaced in 2008. In addition, staff contacted Southern California Edison (SCE) to perform an energy efficiency test on the current pumps and was informed that the booster pumps are still within acceptable tolerances and do not warrant replacement at this time. However, the original control panel and operational components of the booster pump systems that were installed in 1994 are outdated and are limiting staff's ability to manage the irrigation system and reduce system failures. Staff recommends replacing the current operating system with a variable frequency drive (VFD) system. This system will reduce the speed of each pump based on the line pressure and current operating parameters that is needed at each irrigation valve, instead of supplying the maximum available demand and pressure described previously. By only supplying the water and pressure needed during an irrigation scheduled run time, staff will have the ability to schedule individual valves based on overall turf needs. Most importantly, this system will relieve the constant back pressure that has been placed on the system, resulting in a reduction of system failures.

It should be noted that the cost to utilize the well water at AVCP for irrigation use is nominal, as the City is not directly charged for the use of the water. However, staff anticipates an overall reduction in water use of approximately 5% due to the fact that the VFD system will enable staff to adequately schedule the irrigation system based on actual turf needs, rather than the pump system parameters, and will eliminate many of the flooding problems due to overwatering. For reference, staff has estimated that the cost to provide irrigation water at AVCP through a standard potable water source provided by Ventura County Water Works District No.1, would be in the neighborhood of approximately $250,000 annually.

The total cost to replace the current booster pump operating systems, at the two well locations, with a variable frequency drive system is approximately $33,925.

Variable Frequency Drive System		$29,500
	Sub-total	$29,500
	15% contingency	$4,425
	Total	$33,925

Replacing the Basketball Court Backboard System and Bleachers at the Arroyo Vista Recreation Center Gym:

The basketball court backboard system that raises and lowers the backboards at the Arroyo Vista Recreation Center (AVRC) gym has outlived its life expectancy and is in need of replacement. This system was originally installed in 1993 during the construction of the gym facility. Over the years, the electric motors, cables and pulleys that raise and lower the backboards have stretched and worn beyond repair. Currently, the backboards are left in the down position. This has caused some difficulty with the basketball leagues, as the basketball hoops along the short sides of the court occasionally create an obstruction when a full court game is being played. In addition, the design of the system does not account for mechanical safety equipment that has become available since the equipment was originally installed, such as safety straps that inhibit the backboards from free-falling and winch brackets with locking lug nuts, designed to stop bolts from backing out and coming loose.

The three sets of gym bleachers have also outlived their life expectancy, as they were also originally installed during the construction of the gym building in 1993. In addition to needing extensive repairs, such as new motors and wheel sets, they do not meet current accessibility standards as established by the Americans with Disabilities Act (ADA) and they do not conform to current California Building Code (CBC) requirements, particularly the CBC standards for guardrails and handrails. Staff has obtained quotes to retrofit the bleachers with new guardrails and handrails, and has determined that the total cost to repair and retrofit the bleachers is approximately $24,000. However, retrofitting the bleachers would not allow use of the floor space around the bleachers, as the bleachers would need to be permanently set in the open position. The new handrails and guardrails would not fold as the bleacher seats were put away. In addition, staff is not convinced that retrofitting the bleachers is an acceptable solution based on the age of the bleachers, as modifying the design of the bleachers may affect the structural integrity of the steel framework. However, due to the age of the bleachers and the fact that the bleachers will take away usable floor space of the gym, staff recommends replacing the bleachers with new automatic foldable bleachers that meet current CBC and ADA requirements. Staff has obtained quotes for new bleachers, including installation and disposal of the existing bleachers, and has determined that the total cost to replace all three sets is approximately $55,000.

The total cost to replace the basketball court backboards and the gym bleachers at the AVRC gym is approximately $87,400.

Backboard repair and safety straps		$21,000
New automatic foldable bleachers		$55,000
	Sub-total	$76,000
	15% contingency	$11,400
	Total	$87,400

FISCAL IMPACT

The following is a cost summary of the costs associated with the improvements listed above:

Painting the California Highway Patrol Leased Space at the Police Services Center and the Exterior of Arroyo Vista Recreation Center:

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Police Services Center gates		$4,800
Arroyo Vista Recreation Center Exterior Painting		$9,500
	Sub-total	$21,700
	15% contingency	$3,255
	Total	$24,955

Installing Three Phase Power and Upgrading the Sewer Lift Station Pumps at Arroyo Vista Community Park:

Southern California Edison (three phase power)		$25,000
Electrical panel, material and labor		$7,500
(2) 5hp macerator pumps, material and labor		$32,000
	Sub-total	$64,500
	15% contingency	$9,675
	Total	$74,175

Installing a Variable Frequency Drive Irrigation Booster Pump System at Arroyo Vista Community Park:

Variable Frequency Drive System		$29,500
	Sub-total	$29,500
	15% contingency	$4,425
	Total	$33,925

Replacing the Basketball Court Backboard System and Bleachers at the Arroyo Vista Recreation Center Gym:

Backboard repair and safety straps		$21,000
New automatic foldable bleachers		$55,000
	Sub-total	$76,000
	15% contingency	$11,400
	Total	$87,400
	TOTAL COST	**$220,455**

The total project cost of $220,455 was not included in the fiscal year 2012/13 Facilities Division (7620) or Parks Division (7800) spending plans. Staff is requesting an additional appropriation from the General Fund Reserve (1000) in the amount of $220,455 to the Facilities Division (7620), in the amount of $112,355; and to the Parks Division (7800), in the amount of $108,100.

STAFF RECOMMENDATION (ROLL CALL VOTE REQUIRED)

1. Approve painting the California Highway Patrol leased space at the Police Services Center and the exterior of Arroyo Vista Recreation Center; Installing three phase power and upgrading the sewer lift station pumps at Arroyo Vista Community Park; Installing a variable frequency drive irrigation booster pump system at Arroyo Vista Community Park; Replacing the basketball court backboard system and bleachers at the Arroyo Vista Recreation Center Gym; and

2. Adopt Resolution No. 2013-____ amending the FY 2012/13 budget to appropriate $220,455 from the General Fund Reserve (1000) to the Facilities Division (7620), in the amount of $112,355, and to the Parks Division (7800), in the amount of $108,100, for the improvements and repairs at the Police Services Center, and Arroyo Vista Community Park and Recreation Center as described in this report.

Attachment: Resolution 2013-____

RESOLUTION NO. 2013-____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MOORPARK, CALIFORNIA, AMENDING THE FISCAL YEAR 2012/13 BUDGET TO ALLOCATE $220,455.00 FROM THE GENERAL FUND (1000) TO THE FACILITIES DIVISION (7620), IN THE AMOUNT OF $112,355, FOR PAINTING AT THE POLICE SERVICES CENTER AND ARROYO VISTA RECREATION CENTER, AND THE REPLACEMENT OF SPORTS EQUIPMENT AT THE ARROYO VISTA RECREATION CENTER GYM; AND TO THE PARKS DIVISION (7800), IN THE AMOUNT OF $108,100, FOR SEWER LIFT STATION AND WELL PUMP SYSTEM IMPROVEMENTS AT ARROYO VISTA COMMUNITY PARK

WHEREAS, on June 20, 2012, the City Council adopted the Operating and Capital Improvement Budget for Fiscal Year 2012/13; and

WHEREAS, a staff report has been presented to City Council discussing the need to paint the interior of the California Highway Patrol leased space at the Police Services Center and Arroyo Vista Recreation Center, and replace the basketball hoop backboards and bleachers at Arroyo Vista Recreation Center gym, in the amount of $112,355.00, as well as the need to make improvements to the sewer lift station and well pump system at Arroyo Vista Community Park, in the amount of $108,100.00; and

WHEREAS, an additional appropriation of $220,455 is requested from the General Fund (1000) to the Facilities Division (7620) in the amount of $112,355, and to the Parks Division (7800), in the amount of $108,100 to fund these projects, and

WHEREAS, Exhibit "A" hereof describes said budget amendment and its resultant impact to the budget line items.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MOORPARK DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. A budget amendment allocating $220,455 from the General Fund (1000) for painting at the Police Services Center and Arroyo Vista Recreation Center; sewer lift station and well pump system improvements at Arroyo Vista Community Park; and the replacement of sports equipment at the Arroyo Vista Recreation Center gym, as more particularly described in Exhibit "A" attached hereto is hereby approved.

SECTION 2. The City Clerk shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the book of original resolutions.

PASSED AND ADOPTED this 6th day of March, 2013.

_____
Janice S. Parvin, Mayor

ATTEST:

_____
Maureen Benson, City Clerk

Attachment: Exhibit A – Budget Amendment

EXHIBIT A

BUDGET AMENDMENT FOR THE GENERAL FUND FOR PAINTING AT THE POLICE SERVICES CENTER AND ARROYO VISTA RECREATION CENTER; SEWER LIFT STATION AND WELL PUMP SYSTEM IMPROVEMENTS AT ARROYO VISTA COMMUNITY PARK; AND THE REPLACEMENT OF SPORTS EQUIPMENT AT THE ARROYO VISTA RECREATION CENTER GYM

FY 2012/13

FUND ALLOCATION FROM:

FUND TITLE	FUND ACCOUNT NUMBER	AMOUNT
General Fund	1000-5500	$220,455
Total		$220,455

DISTRIBUTION OF APPROPRIATION TO EXPENSE ACCOUNTS:

BUDGET NUMBER	CURRENT BUDGET	REVISION	ADJUSTED BUDGET
1000-7620-2005-9252	$28,100	$14,030	$42,130
1000-7620-7701-9252	$24,000	$10,925	$34,925
1000-7620-7701-9502	$0	$87,400	$87,400
1000-7800-7803-9504	$0	$108,100	$108,100
Total	$52,100	$220,455	$272,555

Finance approval: _____