

# **Barton Community College**

**February 10, 2015**

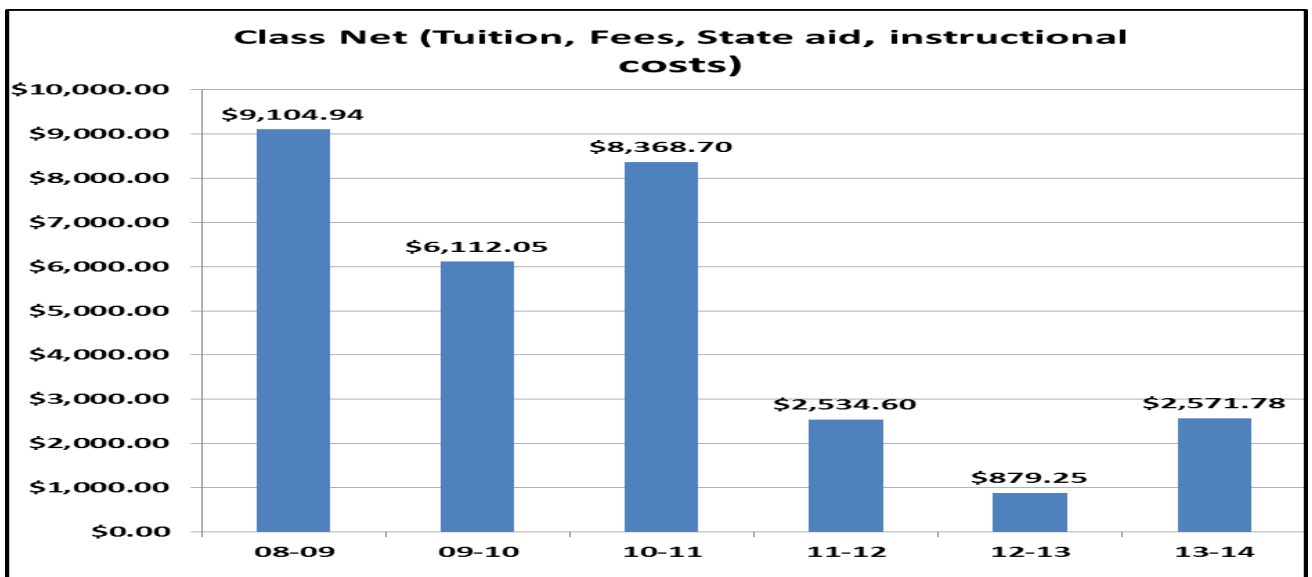
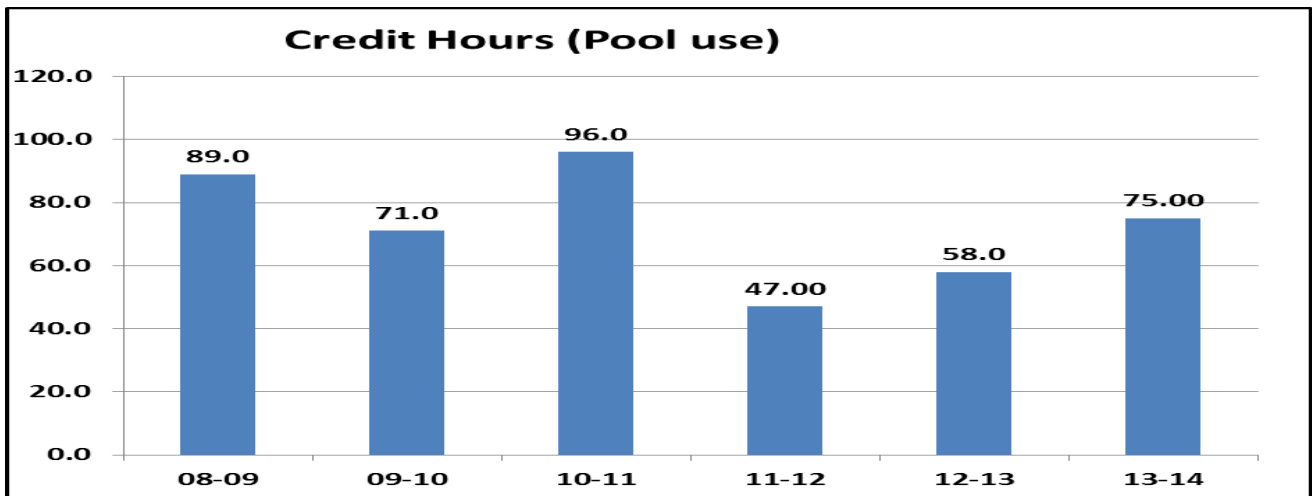
## **Board of Trustees Study Session**

### **Swimming Pool**

# Swimming Pool

## Revenue:

The college uses the pool for a limited number of for credit courses. These courses currently include scuba diving and aqua aerobics. In the past 6 years, the annual credit hour production has varied from a high of 96 credit hours in 08-09 to a low of 47 credit hours in 11-12. The class net for these courses has been as high as \$9,100 in 08-09 to a low of \$880 in 12-13. The college also receives approximately \$3,300 annually in pool rental charges. "Open Swim" times are scheduled on a weekly basis for students and community members. The open swim times average 3 students/community members per week.



## **Expenses:**

### **Annual costs of maintaining the swimming pool (based on FY14 expenditures):**

Maintenance - \$23,000 (chemicals, chlorine, acid, pool repairs, etc.)

Natural Gas - \$14,400 (water and space heating costs – additional boiler, pool is maintained at 83 degrees year round).

Electricity - \$10,200 (pumping and air distribution/heating costs – pool pump/circulation is maintained 24/7 due to surge tank, filtering, and chemical treatment. Air distribution is provided 24/7 to limit humidity and maintain temperature-85 degrees in space).

Lifeguards - \$4,400 last year (cost of providing lifeguards for open swim and rentals).

Labor & Testing - \$5,000

**Total Operating Expenses for FY14 - \$57,000**

## **Current Capital Expenditures:**

**Replace pool filter** – Recently the sand filter developed a hole and started leaking. The filter operates in a corrosive environment due to the high humidity, chlorine, and acid that are used in the pool. The filter was original to the pool and its filtering capabilities had diminished to the point that we were using excessive amounts of chlorine and acid to maintain the pool. In addition, the pool required our staff to manually clean it (brush and suction) in an attempt to keep it clean. It became impossible to keep the pool clean and the water clear.

December 14, our staff replaced the pool filter, the automated valve system which allows for backwashing and cleaning, and all piping associated with the filter. The replacement included 5,500 lbs of replacement filter media. Due to the valves that were original to the pool not sealing, the majority of the water in the pool had to be drained.

The cost to the college to replace the filter, piping & valves, media, and backwash system was \$19,000. This cost does not include our labor.

**PH and acid controls** – The equipment necessary to monitor the PH and acid levels were basically in the same shape as the filter. This equipment was not original, however the lifespan of this equipment is only around 15 years. Proper chlorine and acid feeds require precise monitoring of the chemicals. Replacement equipment has been purchased and will be installed by our staff as time permits. The cost of replacing this equipment is \$4,500.

### **Future Capital costs:**

The swimming pool is over 45 years old and is showing its age. Although the facility has been maintained adequately over the years, the facility requires ongoing maintenance and is in need of additional repairs and renovation. The following items will need to be addressed:

- **Replace ceiling grid and tile** – Due to the high humidity in the space and the age of the ceiling grid (1970), the ceiling grid and its supports have rusted and must be replaced. The ceiling grid supports the light fixtures, the ceiling tile, and the HVAC diffusers in the pool area. The pool must be drained, and the entire pool area will need to have scaffold set up in it to replace the grid. Since Barton does not offer classes in the pool over the summer, the best time to replace the grid would be during the summer. However, this will create conflicts with the summer swim club usage.

There are some areas of the ceiling where the ceiling tile has fallen into the pool. It cannot be predicted when the ceiling grid support will fail, just that without replacement it eventually will. When the grid fails, the light fixtures, ceiling grid, ceiling tile, and HVAC diffusers will end up in the pool or on the deck. New ceiling grid and supports will be either aluminum or fiberglass and will resist rusting. Estimated cost of replacement (based on 2012 quote) - \$52,000.

- **Pump/Strainer basket & housing** - The pump, impeller, and housing are also in need of replacement. This equipment operates in a corrosive environment due to the high humidity and the chlorine and acid that are used in the pool. As the impeller pumps water and fine solids the impeller and housing deteriorate. In turn, this reduces the gallons per minute pumped, decreases filtering, and

increases chemical and maintenance costs. Impellers last approximately 5 years, with the entire pump and housing needing replaced every 10 years. The cost of replacing the pump/strainer & housing will be approximately \$4,000.

- **Pool deck material** – The rubberized material surrounding the pool is pulling apart at the seams. This material has been in the pool for over 20 years. Estimated cost to replace pool deck material - \$45,000.
- **Acidizing and painting of pool surfaces** – The pool requires annual acidizing of the grating material and tile surrounding the pool. This is done to prevent the calcium buildup of the grating and tile around the pool. The cost to the college to acidize the grating and tile on an annual basis is \$900 and is included in the annual maintenance costs. Approximately every 10 years, the entire pool needs to be drained, completely acidized, and repainted. This is done to maintain the appearance of the pool as well as the integrity of the concrete. The cost to do so is approximately \$9,300.

The following chart shows the expected revenues and expenses as they relate to the pool over the next 5 years. This information is based on the history of operation over the previous 5 year period.

Pool Revenues and Expenses based on current history	
	5-Year Projection based on History
Course Revenue	\$20,464
Rental Revenue	\$16,500
<b>Total 5-year Revenue</b>	<b>\$36,964</b>
Maintenance & Operational Expenditures (Maintenance, Chemicals, Natural Gas, Electricity, Lifeguards)	\$238,600
Capital Expenditures (Ceiling grid/Tile, Pump, Deck covering, Painting & Acidizing)	\$110,300
<b>Total 5-Year Expenditures</b>	<b>\$348,900</b>