

# COMMERCE TOWNSHIP 2MG WATER TOWER INFORMATIONAL PACKET

## **Project History**

The water tower project was introduced as a project that may benefit the Township in the February 2008 Water Reliability Study prepared by Giffels-Webster Engineers, Inc. The report recommended building the water tower at a site near the hospital and presented it as a possible solution to lower DWSD water rates.

The Oakland County Water Resources Commission (OCWRC) made a presentation to the Twp Board on July 13, 2010 and explained that installing a tower could save the Township approximately \$1.3 million / year.

The final Water Tower Feasibility Study was submitted and presented to the Township Board on June 14, 2011.

A presentation was made to the Upper and Lower Mount Royal Homeowner's Association in March 2012.

An informational presentation was made to the Planning Commission at the April 2012 Meeting.

A project update presentation was made to the Township Board at the April 2012 Meeting.

## **Reasons for a Water Storage Facility**

The DWSD continues to increase water rates to suburban customers because of the distance and elevation from the source of the water. The rates are also based on the amount of water that is used and the "peak" usage (which usually occurs in the morning and in the evening). One way that the "peak" rate can be controlled is by the installation of a water storage facility. During "peak" usage periods, water will come from the water storage facility so that a lower amount of water is drawn from the DWSD connection during these "peak" periods. Water will be drawn from the DWSD system during non-peak times to fill the tank.

The installation of a water tower will also stabilize pressures within the water distribution system and provide a reserve source of water in case of emergency.

## **Construction Schedule**

Construction is planned to start sometime towards the end of 2012 and the tower is planned to be operational by the end of 2013. The goal is to have the tower operational by the summer of 2014 in order to provide data to DWSD to prove that the tower is functioning as it was designed.

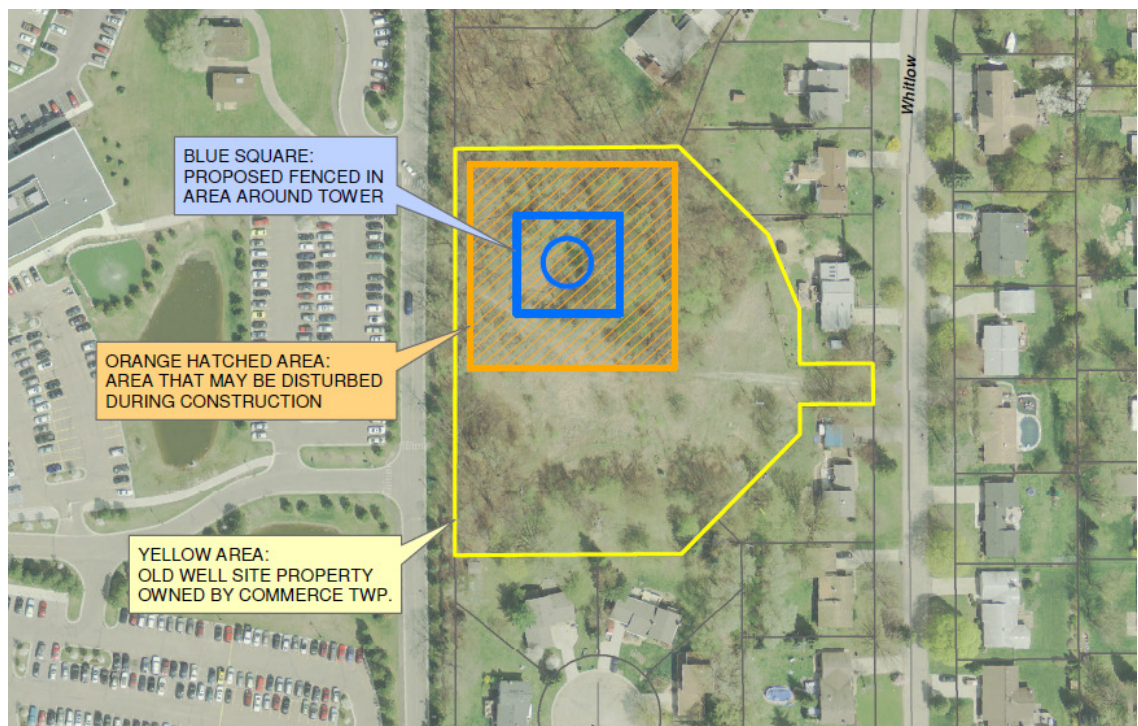
## **Project Cost**

The total project is estimated to cost \$5.8 million and will be paid for by the water system capital improvement fund. Based on information provided by the DWSD (rates with and without a tower for 2012), this project will have a payback of less than 5 years.

## **Sites Considered**

More than 9 properties were considered as potential locations for the water tower. The locations included several Township owned properties, several sites on the hospital property, and several other privately owned properties. A separate memorandum is available that shows each site and a brief description of why that site was not selected.

The Township owned Old Well Site (located just east of the hospital property) was selected because of its elevation and adjacent infrastructure. This site also has the area required to actually construct the water tower.



## COMMON QUESTIONS

### **Where will the water tower be built?**

The water tower will be located at a Township owned property adjacent to the east side of the Huron Valley Hospital. The site is located just north of Sleeth Road between Whitlow Blvd and the Huron Valley Hospital property. This site was previously used as a well site, but those wells were abandoned approximately 10 years ago.

### **Why do you think this is a good location for the water tower?**

This site is a good location for the water tower because it is one of the highest elevation sites owned by the Township. The top of the water tower needs to be at a particular elevation in order to function correctly with the entire water system. A lower site would mean that the tower would need to be taller or pumps would be required to be installed, which would add cost to the project. This site also has the correct size water mains running through it to make the water tower function correctly with the system.

### **How tall will the tower be?**

The tower will be approximately 150 feet tall at this location.

### **How would you address people who say there are safety issues with the water tower being built near their home?**

The water tower is a very stable structure. Even when you see aftermath photos of tornados going through an area, usually the only thing standing is the water tower. The closest home is approximately 250 feet from the tower.

### **I heard that cell phone antennas will also be built on the water tower, is that true?**

The water tower will be constructed with the provisions necessary to install cellular antennas at the top. This could provide additional revenue to the Township if they are contacted by an interested party. No contracts have been made with any cellular service providers at this point in time.

### **How is the tower constructed?**

The first step will be to grade the site and install the foundation for the structure. After the foundation is complete, the walls of the concrete column will be poured and the steel reservoir will be assembled on site and welded into place.

### **Will the site be secure during construction?**

The area will be secure during construction.

### **How is the tower painted?**

The metal part of the tower is assembled and initially painted while it is on the ground. The site will be deigned so that a containment system (drapes hanging down) can be installed when future painting is required.

### **What type of tower will be installed?**

A composite style tower is proposed for this site. This type of tower was selected because it has the lowest maintenance costs for a tower of this size.



**Where will the access to the site be located?**

Site access currently exists off of Whitlow Street. We are working with the hospital on an agreement to allow access to the site from road on the hospital property.

**Will there be lighting for the site?**

The only lighting that is proposed at this time is for security purposes.

**Will the water tower be secure after it is installed?**

The OCWRC has standards that are required for security and these will be met or exceeded. The site will be monitored by camera and the tower site will have a security fence around it.

**Is there a landscape plan?**

A landscaping plan is being prepared and will be submitted at a future Planning Commission meeting.

**I am not connected to the water system, how does this benefit me?**

The tower will benefit the entire water system. All water system infrastructure installed takes into account the ultimate build out of the system. This tower will benefit current and future users of the water distribution system.

**Why do you think a water tower is necessary for this area?**

The water tower will allow Commerce Township to negotiate better rates for the water that they purchase from DWSD. Commerce Township currently pays some of the highest rates of any DWSD customer. The tower will allow the township to control the peak usage periods (typically early morning and evening) by drawing water from the tower instead of from the DWSD supply. The peak amount of water drawn from the DWSD system at any time is a factor in how the rates are determined.

**When will there be ground breaking for this project?**

Groundbreaking is expected to take place by the fall of 2012 to install the foundation for the tower. There will likely be a break in construction during the winter and construction will start again in the spring of 2013. The township hopes to have the water tower in service by the end of 2013.

IF YOU HAVE ANY OTHER QUESTIONS, PLEASE CONTACT:

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