



INTERSECTION IMPROVEMENT PROJECT

The City of Piqua Intersection Improvement Project began in October of 2013 when the City was awarded Federal Congestion/Mitigation/Air Quality (CMAQ) grant funding through the Miami Valley Regional Planning Commission (MVRPC). The total cost for the roundabout construction is \$978,826 with MVRPC funding 75% of the construction cost. The remaining 25% of the construction cost is provided by the City at about \$245,000.

The CMAQ program is strictly to be used to fund transportation projects or programs that will contribute to the attainment or maintenance of clean air standards. Some examples of this are: Pedestrian/bicycle facilities, traffic management/



monitoring/congestion relief strategies, and alternative fuel projects. The City of Piqua's roundabout addresses the following challenges:

Reduced traffic congestion and improved traffic flow for all surrounding areas.

A standard stop sign always has at least one direction of traffic stopped at all times. A roundabout uses yield-at-entry traffic control to eliminate stopping when it's not required.

Reduce vehicle emissions and fuel consumption. Yield-at-entry eliminates most stop-and-go traffic associated with a stop sign. This leads to fewer vehicles idling while stopped at an intersection, which reduces the amount of vehicle emissions.

Improve traffic safety. Since all vehicles are traveling in the same direction and at a lower speed in a roundabout, crashes are generally less severe. Left-hand, right-angle (T-Bone) and head-on crashes are virtually eliminated by a roundabout.

THANK YOU

PIQUA NEIGHBORHOOD IMPROVEMENT ASSOCIATION

The Candlewood Boulevard pictured is maintained by the Southwest Neighborhood Association.

For more information about the Neighborhood Association in your area you may contact the following:

North Parks Neighborhood
Russ Fashner
604-1971

Southwest Neighborhood
Charles Peltier
778-1250

Shawnee Neighborhood
Jerry Thomas
418-4344

Southview Neighborhood
Jim Vetter
778-1696



STAUNTON SOLAR PROJECT

On Thursday, June 28, the newest renewable energy resource was added to Piqua's already diverse power supply portfolio. Shortly after noon, Piqua Power System personnel, and Vaughn Industries, working for NextEra Energy Resources (NextEra) flipped the switch on the 1.75-megawatt Staunton Solar Project. The flow of green, carbon-free electrons from Staunton Solar Field to Piqua residents and businesses culminated a multi-year planning effort that officially kicked-off when the Piqua City Commission approved participation in the American Municipal Power (AMP) Phase II Solar Project on August 16, 2016.

This unique arrangement allows Piqua to purchase a portion of the power generated from the solar field from AMP, while NextEra designed, built, operates and maintains the solar field built on 8.5 acres, part of which was previously Piqua's Staunton School. The City of Piqua has leased the property to NextEra for the life of the project, expected to be 35 years. NextEra is the world's largest generator of energy from the wind and sun.

The Staunton Solar field, when added to the City's participation in other wind and hydro generating resources, means that well over 20% of Piqua's Power needs are provided by green, renewable sources. The Staunton Solar field uses a fixed-tilt ground-mounted array orientated to maximize energy

production. A total of 7,672 solar panels, 320 Watts apiece collect and convert sunlight to Direct Current (DC) electricity. 39 inverters, rated at 1,500 Volts DC, then transform the solar panel generated DC electricity to Alternating Current (AC) electricity. The site transformer completes the process by stepping-up the voltage from 600 Volts to 13,200 Volts so that it can be utilized by Piqua electric customers.

The power generated from the Staunton Solar Project is one of Piqua's most economical power supply resources at less than \$0.04/kilowatt-hour. On the hottest days of the summer, when power is typically the most expensive, the Staunton Solar

field will provide approximately 2.5% of Piqua's peak demand. The Staunton Solar field will provide benefits similar to Piqua's combustion turbines. These behind-the-meter, peaking resources provide needed capacity, while also reducing the need to transmit power to Piqua from remote generating stations.

The Staunton Solar field generates enough electricity to power about 320 homes. It will avoid approximately 2,134 metric tons per year of carbon dioxide emissions that would have been produced if the electricity had been generated using fossil fuels. This is the equivalent of taking about 457 passenger vehicles off the road.



1ST YEAR OF 3 YEAR CONSTRUCTION PROJECT AT WASTEWATER TREATMENT PLANT

In September 2017, Peterson Construction, CDM Smith Engineering, and Bowser Morner Testing all began work on the Piqua WWTP project. This project will meet the February 2020 mandate and compliance schedule set forth by the EPA to eliminate Sanitary Sewer Overflows (SSO).

The new design is 8.7 Million Gallons per Day (MGD) and a new peak hourly flow of 22.5 MGD. Design flow is nearly twice that of existing and new peak flow is nearly triple the current peak flow.

A new head works structure is being built. Components for this include, two 11 MGD and two 5.5 MGD submersible pumps, mechanical screens, compactor/washing systems, stacked grit conical vortex trays, slurry and dewatering equipment. This building will also have an electrical room, 1500-kilowatt generator with switchgear, and heated dumpster area.

From the head works building, flow will proceed to both of the new extended

aeration oxidation ditches. These ditches are modulated for Biological Nutrient Removal (BNR). From the ditches, flow will continue into three 120' diameter by 16' sidewall depth final settling clarifier tanks. Between these final tanks will be a new secondary control building with basement.

Effluent flow from the finals will travel to a new Ultraviolet (UV) disinfection station. Post aeration will be expanded and a

new diffusing grid will be placed. Three new vertical turbine pumps will be installed for effluent pumping, when flooding conditions warrant.

Initial biosolids processing will be in a repurposed solids thickening building. Three of the current aeration basins will be converted to aerobic digesters and include three new positive displacement blowers. There will be construction of a new centrifuge building with cold weather enclosed storage on one end.

Other construction includes relocating main power feed lines (special thank you to Piqua Power system), relocating an existing low-hour use backup generator along with installing a new switchgear. Construct a new main electrical building. A new robust Supervisory Control and Data Acquisition (SCADA) system will be installed.

For questions, please contact Chris Melvin at 778-2025.



CITY LOOKS FOR DIFFERENT WAYS TO PROTECT DRINKING WATER

On a warm afternoon last May, Piqua's Water Quality Coordinator Sky Schelle was dumping buckets of young tilapia fish into Franz Pond. The pond, which typically is filled with weeds and algae during the summer, is a maintenance priority for Schelle. "Franz Pond is part of a water network that the drinking water plant pulls raw water from. Like many other Ohio cities we are concerned about the growth of algae in our water supply and how it can impact the treatment process. We have methods to control the algae and weeds, but they are expensive and time consuming, so we're always looking for innovative ways to get the same results." For the past several years, the City has treated Franz Pond chemically to reduce nuisance vegetation and run a weed harvester to cut and collect weeds. In 2018, however, the City experimented with tilapia.



Tilapia fish exclusively eat the type of vegetation that plagues Franz Pond. Working with an Ohio fish farmer, Schelle determined how many tilapia needed to be released into Franz to control the nuisance vegetation. The tilapias are temperature sensitive and will not survive once the water temperature drops into the low 60s. In the fish farm's experience, very few tilapia rise to the surface after the die-off, but if a nuisance is created the City is prepared to collect the fish. In its first year, the project seems to have been

a success. Franz Pond did not need any chemical treatment and the weed harvester was only used once. The tilapia struggled to control the vegetation in the shallowest parts of Franz Pond, so the City has decided to stock a larger number of fish in 2019. If the project continues to show positive results, the annual tilapia release may expand to include the canal network and Echo Lake. For 2018 and in 2019, however, a series of nets kept the tilapia from migrating out of Franz Pond.

This project is just one of several ways the City works to protect our drinking water supply. In 2019, for example, staff will explore ways to divert storm water from entering both Franz Pond and Echo Lake. A reduction of storm water is expected to not only reduce the amount of fertilizer pollution that feeds weed and algae but also slow erosion that contributes to the filling in of those water bodies. The City is also working with homeowners along the waterways to stabilize eroding stream banks. "There are no shortages of challenges" Schelle says, "to protecting our drinking water sources. We depend on Piqua's residents to work with us and understand that their activities, like over applying lawn chemicals, contributes to those challenges. We're extremely lucky to have multiple sources of drinking water in Piqua, but it'll only be through working together that we ensure their safety."

Calendar of Events

Chocolate Walk

Friday, October 12th
5:30 pm - 8:00 pm

Contact - Mainstreet Piqua
773-9355

Trick or Treat in the Municipal Government Complex

Wednesday, October 24th
4:00 pm - 5:00 pm

City of Piqua
201 W. Water Street

Downtown Trick or Treat

Wednesday, October 24th
5:15 pm - 6:15 pm

Contact - Mainstreet Piqua
773-9355

City of Piqua

Trick or Treat Night

Tuesday, October 30th
6:00 pm - 8:00 pm

Downtown Piqua Holiday Horse Parade

Saturday, November 10th
7:00 pm

Contact - Mainstreet Piqua
773-9355

Small Business Saturday

Saturday, November 24th

Contact - Mainstreet Piqua
773-9355

Christmas on the Green

Friday, December 7th
6:00 pm - 9:00 pm

Contact - Mainstreet Piqua
773-9355

Holly Jolly 5K/10K Run

Saturday, December 8th
Registration at 9:00 am

Contact - Mainstreet Piqua
773-9355

Downtown Piqua Holiday Parade

Saturday, December 8th
2:00 pm

Contact - Mainstreet Piqua
773-9355

Please be sure to visit www.piquacommunitycalendar.com
for a complete listing of the events happening in the Piqua community.

CITY COMMISSION

John Martin

Commissioner, 1st Ward
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Ward1comm@piquaoh.org

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Ward2comm@piquaoh.org

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Commissioner, 3rd Ward
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Ward3comm@piquaoh.org

Dave Short

Commissioner, 4th Ward
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Ward4comm@piquaoh.org

Kathryn (Kazy) Hinds

Mayor & Commissioner
5th Ward
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