

BUILDING BRIDGES



VOLUME 6, ISSUE 1

SPRING 2011



Chris E. Bauserman, P.E., P.S.
Delaware County Engineer



DELAWARE COUNTY ENGINEER'S OFFICE NEWSLETTER

INSIDE THIS ISSUE:

<i>The Delaware Soil and Water Conservation District</i>	2
<i>Storm Sewer System Mapping Program</i>	2
<i>Road Sign Retro-reflectivity Standards</i>	3
<i>Panhandle Road Bridge over Olentangy River</i>	3
<i>South Old State Road Improvements</i>	3
<i>Project Timelines</i>	4
<i>Roadside Mowing Program</i>	4

DID YOU KNOW...

"In 1969, about half of all students walked or biked to school. Today, only about 15 percent of all school trips are made by walking or bicycling."

Several months ago, I was in a meeting with county engineers from around the country where I made a comment about the upcoming construction season in Ohio. An engineer from Florida seemed puzzled by my use of the term "construction season" and commented that every season is construction season in Florida. As you know, from late spring to early fall, Ohio weather provides a window that is conducive to highway and bridge construction. It reminds me of the adage that there are really only two seasons in Ohio—the winter season and construction season.

This year, our construction season has been delayed by record breaking persistent rains in April and May. Completion dates on several of our on-going projects has already been delayed. Our roadside mowing operation is also behind schedule. Wet ditches make mowing difficult and we appreciate your patience as we work to get back on schedule.

This spring was also noteworthy for the escalating price of gas. This is an issue that affects all of us, from

our household grocery budgets to our road maintenance budgets here at the Engineer's Office. The price of construction materials has increased significantly in recent years due, in part, to the higher cost of the energy needed to produce asphalt, concrete, gravel and steel.

High fuel prices are also causing people to drive fewer miles and buy more fuel efficient vehicles. A recent report cited a 2% reduction in fuel consumption this year. This also reduces funding for highway projects, which are mostly paid for by state and federal fuel taxes. The federal government imposes a motor fuel tax of 18.4 cents per gallon on gas and 24.4 cents for diesel. Neither has been increased since 1993 when gas was just over \$1 per gallon. Federal fuel taxes are distributed to each state through the state departments of transportation for all kinds of highway and mass transit projects, such as purchasing buses

or rebuilding interstate highways. Ohio collects an additional 28 cents per gallon that is distributed to the state highway patrol and to ODOT and local road agencies. County engineers each receive about \$2.3 million per year from the state tax for highway maintenance.

While a 2% drop in fuel consumption may not seem like a big deal, the reduction in tax revenue combined with the increased cost of construction materials is significant. If this trend continues it will seriously affect the ability of all highway agencies to adequately maintain our highways and bridges. This is one of the fundamental issues in the current debate in Washington over how to fund a new surface transportation bill which is expected to be passed by Congress later this year.

Thanks for taking the time to read this edition of *Building Bridges*. As always, we appreciate any questions and comments you may have.

Safe Routes to School

In 1969, about half of all students walked or biked to school. Today, only about 15 percent of all school trips are made by walking or bicycling. While this change can be attributed to a number of factors, safety is the number one reason that more children don't walk or bike to school.

At its heart, the *Safe Routes to School* (SRTS) Program empowers communities to make walking and

bicycling to school a safe and routine activity once again. The program makes federal transportation funding available for a variety of programs and projects, from building safer street crossings to establishing programs that encourage children to walk or bike to school such as "walking school buses".

SRTS efforts includes five components known as the five E's—Engineering, Education, Enforce-

ment, Encouragement and Evaluation. Implementing an effective SRTS program requires collaboration between parents, children, engineers, educators, law enforcement and local officials. We recently participated in developing a School Travel Plan for Westerville and Olentangy Schools in Genoa Township, and we look forward to more opportunities to do the same across the rest of Delaware County.

Building Bridges



“The Delaware Soil and Water Conservation District is an agency that provides technical assistance on soil conservation and drainage issues to county residents.”

The Delaware Soil and Water Conservation District

The Delaware Soil and Water Conservation District (DSWCD) is a local partner with Delaware County in providing technical assistance to residents on drainage and erosion issues. While the County Engineer’s Office maintains roadside ditches, tiles and storm sewers inside the road right of way, property owners are responsible for drainage courses on their own property (unless it is in a county maintained easement).

Having had one of the wettest spring seasons on record, we received a lot of phone calls and emails from residents who have questions about drainage on their property. The DSWCD is an agency that provides technical assistance on soil conservation and drainage issues to county residents. Drainage is a key element of soil conservation and the DSWCD has trained professionals that can advise you on best practices for maintaining

and repairing waterways, drainage tiles and sewers on your property.

You can find more information about DSWCD by visiting www.delawareswcd.org or by calling 740-368-1921. If you aren’t sure about the location of drainage easements on your property, please contact the DSWCD at the number above or the County Engineer’s Office at 740-833-2400.

Storm Sewer System Mapping Program

The Delaware County Engineer’s Office is responsible for compliance with the Ohio Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) Phase II as it applies to county and township road and storm sewer systems. These road and storm sewer systems are classified by the EPA as a Municipal Separate Storm Sewer Systems (MS4’s).

According to EPA regulations, Delaware County and the townships within the urbanized areas of the county are required to create

and maintain an MS4 map and to locate of outfalls to jurisdictional waters (streams and rivers), discharges to the MS4, as well as pursue corrective measures when illicit discharges are discovered. Illicit discharges can be from failing household sewer systems, non-storm water connections to the MS4, or illegal dumping of trash or fluids to the MS4.

Non-storm water discharges to the MS4 are best identified during the summer months during a “dry period” field inspection. A “dry period” field review will reveal non-

storm water flows in the absence of any precipitation events. Staff from the Delaware County Engineer’s Stormwater Department will be performing data collection on the MS4 in the upcoming months.

You can help us prevent pollution of our surface waters by reporting illegal dumping of trash or liquids in roadside ditches and storm sewers. If you witness any illegal activity, please report it to local law enforcement and follow up by contacting us at 740-833-2400.

Road Sign Retroreflectivity Standards

Retroreflectivity is an engineering property of a material that refers to how light is reflected off of the surface and back to the source. New standards for road sign retroreflectivity are being released in the newest edition of the federal Manual on Uniform Traffic Control Devices (MUTCD) that will affect all public road maintenance agencies. The new standards are designed to improve nighttime visibility of road signs and improve safety.

One of the common causes of automobile crashes is poor visibility of curve warning signs and stop signs. The new federal standards require that all warning and regulatory signs on public roads be compliant with the retroreflectivity standards by 2015. The County Engineer’s Office has implemented an aggressive program of inventorying road signs and measuring retroreflectivity to determine if signs need to be replaced.

New signs lose retroreflectivity over time and can fall below the required standard within seven years, but by using newer high intensity reflective sheeting on replacement road signs, this service life can be extended. While this costly federal mandate is one that all road agencies must find a way to pay for, there is no question that this regulation will result in fewer highway crashes, injuries and fatalities due to poor sign visibility.

“The new standards are designed to improve nighttime visibility of road signs and improve safety”

Panhandle Road Bridge over Olentangy River

The County Engineer's Office is currently studying alternatives for renovation or replacement of the Panhandle Road Bridge over the Olentangy River, located on the north side of Delaware just off US 23. The goal of this project is to maintain a river crossing at this location to serve area residents and provide for regional traffic movement.

The existing bridge was built in the early 1900's and was rehabilitated in 1974-75 including replacement of the bridge deck and widening the roadway surface, but there are a number of deficiencies that routine maintenance can simply



Panhandle Road Bridge over Olentangy River (the Stone Mill Bridge)

not fix such as corroded reinforcing in the arch and the deck, and guardrail that does not meet current federal highway safety requirements.

Future population growth in the area is expected to create the need for additional lanes on the

bridge, so we are investigating what can be done with the existing bridge versus an entirely new structure.

You can find more information about this project on the County Engineer's website at www.DelawareCountyEngineer.org.

"...there are a number of deficiencies that routine maintenance can simply not fix such as corroded reinforcing in the arch and the deck..."

South Old State Road Improvements

The County Engineer's Office is working with the City of Columbus and ODOT to upgrade South Old State Road from Polaris Parkway to Orange Road. Commercial development around Polaris combined with explosive population growth along the South Old State Road corridor has caused traffic to double in the last 15 years. Even with turn lanes that were added in 2003-04, the old two-lane road is simply not adequate for the 21,000+ vehicles per day travelling this section of South Old State Road.

While traffic congestion is a significant problem, the more alarming issue has to do with traffic accidents. The crash rate on South Old State Road between Polaris Parkway and Orange Road from 2006 to 2009 was two and half times the

statewide average for similar roads. Nearly 300 crashes were reported in that time period. The safety problems are mostly related to driveway accesses and the amount of traffic congestion along this section of the corridor.

South Old State Road also lacks connectivity in sidewalks and bike paths. Orange Township has worked for years to develop a comprehensive plan to build and connect bike paths in this area. New developments have provided short, disconnected segments of path. Residents have suggested connected these paths along South Old State Road to link residential areas north of Powell Road to businesses at the south end of the corridor such as the JP Morgan/ Chase McCoy Center. Conceptual

alternatives being developed now would extend the bike path at Orange Road to south of Polaris Parkway. Road improvements will most likely include additional through lanes and turn lanes at major intersections.

The Mid-Ohio Regional Planning Commission recently approved a funding commitment of \$12 million dollars toward this project that will fund up to 80% of right of way and construction costs. Engineering and design will continue into 2012 followed by purchasing the needed right of way in 2013-15. Construction could start in 2015 or 2016. An informational meeting will be held later this summer to present project alternatives. In the meantime, you can find more information at www.southoldstateroad.org.

"The crash rate on Old State Road from Polaris Parkway to Orange Road from 2006 to 2009 was two and a half times the statewide average for similar roads. Nearly 300 crashes were reported in that time period."



DELAWARE COUNTY ENGINEER'S OFFICE NEWSLETTER



50 Channing Street
Delaware, Ohio 43015

Phone: 740.833.2400

Fax: 740.833.2399

E-mail: delcoeng@co.delaware.oh.us

Visit us on the web:

www.DelawareCountyEngineer.org

Printed on Recycled Paper

Project Timelines

East Orange Road Improvements — *Completion in August 2011*

Home Road Grade Separation (Railroad) — *Complete in Oct. 2011*

Olive Green & Porter Central Intersection — *April to July 2011*

Oxbow Road Bridge (E. of Tussic St.) — *May to June 2011*

Center Village Rd. Bridge (1/2 mi. E. of Red Bank) — *May to June 2011*

S.R. 3 & Freeman Intersection — *May to August 2011*

Plumb Road Bridge Replacement (west of I-71) — *July to September 2011*

Brown Road Bridge over Bokes Creek — *Summer/Fall 2011*

S. County Line Rd. Bridge (1/4 mi. north of Robins) — *Summer/Fall 2011*

Home & Concord Road Intersection — *Summer/Fall 2011*

Claypool Road Bridge (1/4 mi. north of SR 229) — *Fall 2011*

Sawmill Pkwy. & North Hampton Traffic Signal — *Summer 2011*

Fancher Road Bridge (at Miller-Paul Road) — *Fall 2011*

S.R. 315 & Orange Road Intersection — *Spring 2012*

Trenton Rd. Bridge over Red Bank Creek (west of SR 605) — *Spring 2012*

Condit Road over Culver Creek (south of Centerburg Rd.) — *Spring 2012*

Centerburg Road over Culver Creek (west of Condit Rd.) — *Summer 2012*

Cheshire & 3B's & K Road Intersection — *Summer 2012*

Roadside Mowing Program

The Delaware County Engineer's Office is responsible for mowing the roadsides of 340 miles of county roads every year. This is a huge undertaking requiring over 3,000 man-hours of work each year.

Mowing is done five times per year. The first round of mowing generally includes mowing be-

tween the pavement and roadside ditch. The second round includes mowing the roadside ditch. The third round includes mowing the entire right of way. The fourth round is done late in the summer and includes various parts of the right of way, depending on how much rain has fallen. The fifth and final mow of the season again

mows the entire right of way.

When you see mowers working along the roadside, please slow down and give them plenty of room. Mowers must maneuver around road signs, trees and other obstructions meaning that they sometimes must move out onto the road unexpectedly. Thank you!

