



From Jim's Desk:

Volume 5 Issue 3
Fall 2006



LAKE COUNTY ENGINEER'S OFFICE

Engineering Lake County's Future



Well, the big news of the year is the storm which started on Thursday, July 27 and ended on Friday, July 28. The major part of the storm seems to have concentrated in the upper Grand River Watershed. This coupled with the steep slope areas of the watershed triggered flash flooding in the Grand River and several tributaries.

As we all know, other areas of Lake County received sufficient rain to flood streets, cause basement flooding, wash out roads and culverts in many of the cities and villages around the County.

Many roads were closed or partially closed due to bridge or other storm related problems. In all, the County Roadway System suffered approximately \$6,500,000 in damage. Four (4) bridges in the system are probable replacements. They are Doty Road over Mill Creek, Callow Road over Grand River, Vrooman Road and Fay Road over Big Creek. Other damaged but repairable are Mantle Road over Red Creek, Ford Road, Stocking Road, Morley Road over Kellogg Creek, Ravenna Road over Kellogg Creek. There is a great deal of debris removal at other structures.

There will be culvert replacements at Lane Road, Williams Road and possibly Leroy Thompson Road. Retaining walls on Blair and Paine roads are in need of repair. We had a large

sinkhole on Casement and 200 to 400 feet of storm sewer totally plugged from debris on Lane Road. There were also thousands of feet of deep ruts that used to be berms.

To date we have identified three (3) main pots of money we can access. Several of our damaged roads are on the Federal Highway System and are reimbursable at 100%. The balance should qualify for FEMA help at 75/25 cost sharing. For several of these, we will be able to access Public Works to help with the 25% local share.

We are still evaluating some of our damage and will probably be finding small isolated locations of damage over the next couple of years.

Overall, our employees responded to the emergency working closely with other departments, EMA, Townships and Villages. We clocked many overtime hours. Everyone is happy with the response and the dedication of all government employees helping the citizens of Lake County in a time of crises.



James R. Gills, P.E., P.S.
Lake County Engineer

Editor: Bonnie Green



Yesterday is ashes; tomorrow is wood. Only today does the fire burn brightly.

Old Eskimo proverb

Special points of interest:

- * Transportation Study in Concord
- * Fire Prevention
- * GPS Seminar
- * Pleasant Valley Bridge wins Award
- * Employee News



Time for a Transportation Study in Concord

Bruce Landeg

Once upon a time, a civil engineering consultant designed a modest condominium project called Glen Eagles, in the sleepy bedroom shire known as Concord Township. Later he designed another larger one in the Quail Hollow. Still later he designed a commercial/retail development by the name of Grist Mill. And so it went throughout middle earth. Many other consultants did the same thing. In fact, some of them liked Concord so much that they moved there themselves. Some of them even became developers. And so it went. One day a White Wizard opened a Waffle House and they all lived happily ever after.

Well, almost. The rest of the story goes like this: In another life, I was that consultant, and I learned

that the moral of the story is this: "Retail follows rooftops". People move to the house of their dreams in a desirable suburban location. Our free market system responds to the increasing rooftops by giving residents goods and services in convenient locations near their homes. Over the last 15 years Concord has grown 44% in population to over 18,000 people. Now the Lake Hospital System has begun construction on a new hospital in the Concord Township business corridor that has triggered another growth spurt in health service businesses and services related to the desires of a large hospital work force. In fact, the business corridor which is centered around Crile and Auburn Roads consists of 957 acres, over fifty-four percent of which is still vacant. Of course, for the County Engineer's

Office, it is the traffic resulting from all this growth that the public now expects a remedy for.

Hence the need is established for the SR-44 Corridor Transportation Study. The purpose of the study is to develop a Strategic Plan that will focus on how Concord Township, working in conjunction with stakeholders, can solve the traffic access/congestion problems along the SR44 Corridor and its associated traffic network. Problematic is the location of the Auburn Road/SR44 intersection which is only 200 feet south of the I-90/SR 44 interchange. The twenty week study begins this fall and is subsidized in part by a \$75,000 grant which the County Engineer's Office applied for and received from NOACA earlier this year.

2006 Fire Prevention Week theme:

Prevent Cooking fires: Watch What You Heat

This year, Fire Prevention Week is October 8-14. It is the 85th event, making it the longest-running health and safety observance on record.

The fire department is joining forces with the National Fire Protection Association (NFPA) to remind us of danger in the kitchen: the possibility of a cooking fire.

Safety advocates are spreading the word on the dangers of cooking fires, most of which result from unattended cooking.

According to the latest NFPA research, cooking is the leading cause of home fires. One out of three home fires begins in the kitchen, more than any other place in the home. Cooking fires are also the leading cause of home fire-related injuries.

When called to a fire that started in the kitchen, firefighters say the residents often tell them that they only left the kitchen for a few minutes. Sadly, that is all it takes for a fire to start.

Safety tips that firefighters and safety advocates will be emphasizing during Fire Prevention Week include:

- * Stay in the kitchen when you are frying, grilling, broiling, or boiling food.
- * If you must leave the room, even for a short period, turn off the stove.
- * When you are simmering, baking, or roasting food, check it regularly. Stay home and use a timer.
- * If you have young children, use

the stove's back burners whenever possible.

- * Keep young children and pets at least three feet away from the stove.
- * When you cook, wear clothing with tight-fitting sleeves.
- * Keep potholders, oven mitts, wooden utensils, paper and plastic bags, towels, and anything else that can burn, away from your stovetop.



GPS Survey Seminar Held at the Engineer's Office

Mitch Ferguson

The Lake County Engineer's Office hosted a GPS Survey Seminar on August 17th. The 6 hour seminar was attended by 30 Northeast Ohio area Surveyor's and Survey Technicians and was presented by Mitch Ferguson, P.S..

The program was intended not only to inform, but also to offer the attendees an opportunity to meet some of the other area surveyors and share some their GPS experiences. The seminar included a discussion about basic GPS surveying principles and provided an introduction to some basic Geodesy principles that are needed in order to accurately calculate and adjust a final GPS point position. The

program also included a review of the various survey datums that are commonly used for horizontal and vertical control.

Dale Glancy, from Toledo Blueprint, Inc., (representing Trimble, Inc.) and Wes Edwards, from our Survey Department, demonstrated the new ODOT VRS (virtual reference stations) RTK GPS system. This is the same GPS system which the Survey Department is now using for real time RTK GPS project control. What all this means is, if there is sufficient open sky, the surveyor can set a survey grade point to within an 1/4 of an inch both horizon-

tally as well as vertically within about 20 seconds after making an internet connection to Columbus! Quite amazing to those of us who started with a transit and a 100' steel tape.

The seminar was well received by those in attendance and concluded with a final discussion of the available online GIS and Tax Map resources.

Historic Bridge Wins Award

Kirk Dimmick

An Historic Bridge Award was presented to the Lake County Engineer's Office on August 16, 2006 in recognition of outstanding efforts in the Rehabilitation and Restoration of the Pleasant Valley Road Whipple Through Truss Bridge by the Federal Highway Administration, The Ohio Department of Transportation and the Ohio Historic Preservation Office.

This 1881 single lane Pleasant Valley Road Bridge was constructed by the Wrought Iron Bridge Company of Canton as a 163' Whipple Truss (double intersection Pratt through truss). The structure, one of less than ten of its kind remaining in Ohio and the longest single span in Lake County, was built to carry Euclid-Chardon traffic on U.S. Route 6 (G.A.R. Highway). After closure in 2001, the bridge was dismantled in 2004 based upon engineering drawings developed

by Richland Engineering. Fabricated replacement members provided by the Ohio Bridge Corporation were high strength steel and all parts were zinc metalized by Ohio Structures, Inc. The deck supporting traffic is made with treated yellow pine boards with an asphalt overlay. The bridge was reassembled on site in 2005 under supervision of U.I.C. General Contractors. The majority of the bridge truss visible above the roadway is the original wrought iron material forged in 1881.





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Engineering Lake County's Future

WE'RE ON THE WEB!

WWW.LAKECOUNTYOHIO.ORG/ENGINEER

Making teens wait before starting to drive

The percentage of 16-year-olds who hold drivers licenses has dropped more than 12 percent since mid-1990, Federal Highway Administration data shows.

The trend is driven largely by 45 states that have graduated drivers licenses. They impose a three-stage requirement including an intermediate stage after the learner's permit.

A lot of parents are scared. They are scared of the hazards of inexperienced drivers and of high insurance premiums. Insurance costs can more than double when a 16-year-old is added to a policy

Motor-vehicle crashes are the leading cause of death among 16- to 20-year-olds.



Employee Anniversaries

<i>Employee</i>	<i>No. of Years</i>	<i>Date of Hire</i>
Charles R. Kushlan	33	5/21/1973
Francis Seifert	33	6/4/1973
Robert R. Welk	26	7/7/1980
Lawrence A. Kral	25	9/21/1981
Robert K. Gockel	25	5/18/1981
Brenda L. Willis	22	6/11/1984
Larry A. Eslinger	18	6/6/1988
Keith Jacobs	18	7/5/1988
George J. Hadden	17	5/22/1989
Jeffrey E. Gertz	17	7/5/1989
Raymond L. Martin	17	7/10/1989
Rodney Hedrick	17	7/10/1989
Alan Exley	12	8/1/1994
Douglas Palugy	10	7/1/1996
Wesley Edwards	9	9/1/1997
Edwin L. Cunningham	8	6/16/1998
Thomas L. Day	7	5/3/1999
Richard Kotaphis	7	6/14/1999
David Phares	6	7/10/2000
Jim Branch	7	8/14/2000
Theodore J. Galuschik	5	8/27/2001
Leanne Exum	4	5/6/2002
James A. Assel	4	5/20/2002
Daniel E. Bukvic	4	5/20/2002
Margaret A. Gall	4	6/3/2002
Mitchell A. Ferguson	4	6/24/2002
Nancy J. Stanziale	4	7/1/2002
Christopher Bernard	4	7/8/2002
Ryan Exum	4	7/29/2002
Karen Delly	3	6/9/2003
Laszlo Szantho	3	7/7/2003
Ingrid Panic	2	10/18/2004
Kathy Howell	2	6/1/2004
Kenneth Lewis	2	6/1/2004
Michael West	2	6/1/2004