



KEBS Quarterly News

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Soils Testing · Wetlands Planning

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3D Laser Scanner – Featured Project

The former railroad trestle shown in the pictures below is now a privately owned structure that spans across the Little Thornapple & King Drain in the NE ¼ Section 33, Chester Township, Eaton County. The landowner currently uses the trestle to access to a parcel on the West side of the drain. During spring, high water levels debris becomes lodged within the support columns of the trestle. The debris causes the water level to rise; this is causing the banks to erode near the abutments of the trestle.

The purpose of the survey was to determine the best option to alleviate the debris from lodging, and thus eliminate the erosion that could jeopardize the structural integrity of the trestle. The survey was performed using the 3D Laser Scanner in conjunction with a conventional total station. The 3D Laser Scanner was used to capture a 3 dimensional image of the trestle, the railroad grade, and the banks of the drain. The trestle was scanned from 3 different locations at a 2-inch grid. The scans of the trestle contained 323,483 surveyed points. The scans of the railroad grade and the banks were performed using a 5-inch grid and contained 1,956,103 surveyed points. In addition to the scans, 50-foot cross-sections were taken 300 feet upstream and downstream from the trestle using the total station. The cross-section points were imported into the scanner software. From the scanned points and the conventional points, contours were generated, and an AutoCAD drawing was created. The amount of detail and accuracy that was collected using the scanner could not have been accomplished using conventional survey methods. Using the scans of the trestle, the support columns, cross supports, abutments and span lengths could all be measured. The Eaton County Drain Commissioner along with Tony Cabose, KEBS, Inc.'s Structural Engineer, will use the survey to evaluate several options before determining the best method to stop the debris and erosion from doing further damage to the drain and the trestle.

Submitted by: Scott Koch, PS, Haslett Office

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Remember when....?

Things change in every aspect of life, whether it is simple things around the home, the cars we drive, or the way we do our job. You never really notice it as it is happening, but all of the sudden you wake up and realize that you don't do a certain thing anymore or you haven't done it "like that" in a long time. There are many things that aren't the same as they were when I started Surveying 20 years ago, and I am not just talking about changes in technology.

Who remembers the Mortgage Certification or Mortgage Report? Lenders, Title Insurance Companies or Realtors used to order these every time a house was sold. Basically, the only thing these Mortgage Certifications did was to ensure to the Lender, Title Company, etc., that the improvements on the property being sold actually set on the property. They didn't care if the house was 5 feet from the line or 10 feet, as long as it wasn't over the line. This was a quick, "plus or minus" type of work. I wouldn't call them surveys. When interest rates started to fall in the early 1990's, the company I worked for had one crew and two draftsmen that worked 8 or 9 hours a day on Mortgages. Sometime in the late 1990's, title insurance companies quit requiring them so lenders stopped ordering them. A survey crew used to do 10 to 15 per day and now they are lucky to do 2 a month.

The way we do construction staking has also changed drastically in the last ten years. Long gone are the days of the 3-man survey crew where the crew chief stood over the hood of the truck with the plans rolled out, scale and calculator in hand, barking instructions to the other crew members. Today, a CADD technician computes all the layout information in the office and uploads it into a data collector. Then a 2-man crew, or if it is an open site, a 1-man GPS crew will go out and set the stakes. I don't think a new crew chief would know what to do if they were given a hand-drawn set of plans, a scale, and calculator and were told to go layout curb and gutter.

Were the good 'ol days really that much better, or did we just get very good and efficient at what we did which made things seem easier? Things will always change, and in surveying, like everything else, we must continue to adapt to the market and change with new technology.

Submitted by: Mike Groat, PS, Marshall Office

Senior Housing for the Baby Boomers

As the baby boomers approach retirement age, there is a growing need for retirement housing and assisted living facilities. KEBS, Inc. is assisting our clients in meeting this need in the Central Michigan area.

In Charlotte, KEBS, Inc. provided surveying and site design to get Hope Landing, a 20-unit privately funded assisted living facility approved for Larcyn Development, a local development company. Integrated Architects of Ann Arbor designed a facility that fits well with the rural setting on the north edge of the city. The project is scheduled for spring 2007 construction.

Seniors who aren't ready to live in assisted living but who like the idea of living among people their own age, will have a new place to live later this year. KEBS, Inc. recently provided site design and agency approval assistance for Clinton Street Place in Grand Ledge, a 24-unit Independent Living facility being developed by local developer, Ron Maguire of Maguire Development Group, and Cheryl McHallam of Flushing, Michigan. This project is funded by the Michigan State Housing Development Authority (MSHDA) and the architect is Economides Architects of East Lansing. Low interest loans from MSHDA and tax abatements from local communities help keep rent low for this type of facility and make an attractive option for 55-and-older active seniors.

Ron and Cheryl are also looking into a similar facility in the Marshall area and also are looking at other communities in the southern Michigan area. There are MSHDA parameters and guidelines that a community must meet to be eligible for this type of funded facility. If you have a property or know of a community that you feel has need for an independent living senior housing project, contact KEBS, Inc. and we will explore the opportunity.

Submitted by: David Starr, PE, Charlotte Office



What does IT stand for?

KEBS is constantly growing and looking into better ways to help benefit its clients. A key way KEBS makes this successful is with their IT (Information Technology) infrastructure and personnel. With a database of over 25,000 contact records, we make it seamless when a returning client calls, even after many years. Most of the time we can pull files, bring up your old drawings, and communicate your current needs on your first phone call. We can do all of this and still have fresh coffee ready for you when you come in to pick up your drawing. Of course, we are still working on trying to have the computers make the coffee.



How is this possible? It's possible because of our established business processes supported by our cutting edge technology. With over 80,400 projects and 25,000 contacts, our system enables us to bring up old client records, make estimates, and determine needs and project path flow quickly. This saves an unbelievable amount of time for our staff and clients. Since servicing our clients is our number one priority, we feel it's worth the extra effort.

In order to establish cutting edge technology and constant up time, KEBS maintains an IT staff. The staff constantly pushes in new directions by slicing through business processes and streamlining clunky methods within the business structure. This forces a lot of change throughout an organization. We know that everyone just LOVES changes and accepts them with open arms! In reality it's not quite that simple, but we've learned that deep breathing goes along way....

Trust thy nerd! All IT staff have the capability to record, lookup, and sniff out any data within your organization. We can record key strokes, read email, and steal identities. It's necessary to put a ton of trust in your IT staff. Trusting your IT staff is often overlooked.

Most companies don't put enough priority into their IT needs. Today, companies base everything they do on technology and it would be a major oversight to not place a lot of importance in your IT infrastructure. At KEBS, the IT staff is integrated with every aspect of the company such as marketing, maintenance, business processes, training, reporting, and auditing. Occasionally, we even have to take a 4-wheeler out to the field because someone messed up their settings.

To conclude, it is important to have significant IT involvement in every aspect of your company. So put a little trust in your IT staff and make sure you are headed in the right direction.

Submitted by: Kevin Thatcher, IT Director

Winter Delineation - it is possible!

Who says wetlands can't be delineated in the winter? Doug Longpre (below) delineating and surveying a wetland on the west side of the State during a February snow storm. At the time the picture was taken, the snow was 12-18" deep, the temperature was 10-15° F, wind was gusting to 40 mph, and the wind chill varied from -4° F to -14° F.



MACDC Conference

The 108th Annual Michigan Association of County Drain Commissioners Winter Conference was held February 14-16, 2007 at the Grand Traverse Resort in Traverse City. KEBS, Inc. was proud to be one of the 65 exhibitors at the conference. We enjoyed speaking to the Drain Commissioners and their staff, and hope to be able to work with them in the near future.

KEBS, Inc. also exhibited at the Greater Lansing Home Builders show on March 2-4, 2007 at the Summit in Lansing.

Thank you to everyone that stopped by our booth and spoke with us!

Submitted by: Lynn Hose, Charlotte Office



MACDC Conference, l to r: Lynn Hose, AJ Patrick, Dave Starr, Bruce Porter

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Check us out
on the Web!

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KEBS' Mission

Working together to provide professional engineering and surveying services that sets the highest standards, while enhancing the quality of life for our employees, clients, and communities.

LEED for Homes

This past year I attended a LEED for Homes (LEED-H) seminar. You have heard of “building green” or the “green industry”, well LEED is sponsored by the US Green Building Council, and stands for Leadership in Energy and Environmental Design. There are presently LEED certifications available for new construction and renovation for commercial and industrial projects, however, at this time, LEED for Homes is only being tested as a pilot program. Eventually, a rating system for certification will be formally put in place for use by the home building community and its suppliers. Qualified homes will have a performance level rating of certified, silver, gold, or platinum.

The idea behind LEED is to promote sustainable design, construction, and operations practices in buildings nationwide. The rating system will be a tool for introducing green building practices to the new home building marketplace. LEED-H aims to recognize the top 25 percent of homes that incorporate best-practice environmental features, including:

1. The efficient use of energy resources.
2. The efficient use of water resources.
3. The efficient use of building construction resources through improved design, material selection and utilization, and construction practices.
4. The efficient use of land resources.
5. Enhanced indoor environmental quality to safeguard the health of the home's occupants.

There are some communities in the Mid-Michigan area that are already pushing builders and developers toward LEED certified construction and recently we have been finding Clients that are expecting the same. This is a trend that is only going to grow and it will likely become the general expectation of Clients and Government Agencies alike. Today, a LEED project may be a plus in sales and marketing or a good corporate image building tool, but tomorrow it may be the law. KEBS can assist you with your land planning and site engineering as you move toward “Greener” Development. Please call us and we will be glad to discuss what LEED may mean for your residential or commercial projects.

Submitted by: Bruce Stewart, Landscape Architect, Haslett Office