An issue on workforce development and training

Surveying—Experience and knowledge must accompany technology

Public works departments are becoming more and more reliant on technology to perform complex tasks. However, when it comes to the ability to perform proper surveys, technology cannot replace experience. In fact, the preservation of old surveys is becoming increasingly difficult. Corners that were established in the 1800’s are slowly being lost with development, and once removed they are lost forever.

This problem of “losing history” not only relates to the actual corner-markers, but also to old road records. These records relate the easement and right of way to the road system, and help establish fence lines along rights of way. This should be a concern of citizens who have property abutting rights of way (ROW) because even if that ROW is not currently being used for the benefit of the community, it still belongs to the governing body. Some county road officials think that responsibilities need to start being pushed onto developers to do proper research and identify existing survey markers to help preserve the existing surveys as well as the use of the ROW.

Current statutes that affect surveying within Kansas can be found at http://www.ksls.com/statutes.htm.

Missing markers and poor records not only have an effect on the history of Kansas, but it can slow the process of getting new plans approved. The ability of county surveyors to properly perform their jobs is compromised by tight resources, as most people, including commissioners, do not realize how much effort must be put into completing a survey, by law. New methods are available to make the storage of data of current surveys easier, but the surveyors must still collect the correct information in the proper, and sometimes very time-consuming, manner.

A talk with Chip Woods
To learn more about some of the surveying concerns faced by counties, we talked with Lyon County’s Chip Woods. Woods is a rare bird—he is both the county engineer and

continued on page 2 ➤
Surveying, continued from page 1

the county surveyor. He understands the complexities of surveying on the ground and in the office.

Most questions about surveying Woods receives day-to-day tend to be about the cost of a survey and what is actually required to do one; he said the general public typically is not aware of the research required before you can even begin a survey.

Woods is well familiar with outdated files, and difficulties with maintaining rights-of-way and keeping section corners up to date. He keeps careful records and provides assistance from the county for locating survey monuments in gravel and asphalt roads. This is his method:

To maintain accurate records on older survey materials, the original General Land Office (G.L.O.) Field Notes are maintained in Lyon County’s survey room along with the original Road Record and Permanent Survey Books. Woods maintains an extensive index of the roads and surveys for surveyors so the public can find the information, and keeps the section corner reports and surveys in a large flat file system in the survey room. The locations of section corners are kept in books by township and range, and have been put into a computer database to keep them current.

Woods has also put copies of the road records onto CD, and will put the permanent survey books on CD also, as time allows. Woods says it is

Types of surveys in Kansas

There are currently six different types of surveys performed in Kansas today. The first type of survey is a Mortgage Title Inspection. This survey is required to obtain title insurance, and is the minimum service that a lender requires for closing a loan. It is a location of improvements and a quick check for encroachments onto the property. This survey does not identify precise boundaries and should therefore not be used for the establishment of a fence, structure, or other improvement.

The next type of survey is a Boundary Survey, which will be made on a subject’s property with the property corners being located and verified or reset. This survey is often used for any land survey performed for the purpose of describing, monumenting, locating the boundary lines of, or platting one or more parcels of land. It is recommended that any time a parcel of land, including city lots, changes hands, the person purchasing the land should request a boundary survey to make sure they know the boundary lines of their land or lot so they know of any encroachments or easements across their property. Violations and encroachments onto or from the subject’s property will be checked for and this survey can be used for the establishment of a fence, structure, or other improvements by the property owner.

A Boundary and Improvement Survey is similar to a boundary survey in that it will be made on a subject’s property with the property corners being located and verified or reset. This survey will also specifically locate improvements on the property and check for violations or encroachments onto or from the subject’s property and this survey can be used for the establishment of a fence, structure, or other improvements by the property owner.

A Tract Survey is also similar to a boundary survey in that the boundary corners will be located and verified or reset as a boundary survey is made. This survey is more commonly used on large land properties that have improvements that do not require location. Violations and encroachments are checked, but the primary emphasis is along property lines to find discrepancies between the surveyed line and lines of possession. This survey can be used for the construction of a fence, structure, or other improvements by the property owner.

An ALTA/ACSM Land Title Survey is the most comprehensive type of survey which includes all aspects of boundary survey and improvement location and identification of any additional evidence of possession or use. Since this is an expensive procedure, it is primarily used on commercial property. The Minimum Standard Detail Requirements for ALTA/ACSM Land Title Survey can be viewed at http://www.ksls.com/forms/detail_requirements.pdf.

The last type of survey conducted is an Architectural/Topographic Survey. This survey is typically used when trying to determine the "configuration of the surface of the ground and the location of all natural and artificial objects, including utilities, drainage ways, structures, ingress and egress to the property and any other visible limitations or enhancements to the property." Lyon County, Kansas frequently uses this type of survey on road and bridge improvement projects. In cases where the county is putting up a new building, they do the topographic survey for the site unless the work is contracted out to a consultant. This survey should also be conducted with a boundary survey to show lines of possession.
Johnson County checklist for surveying

Procedure
1. Submit survey plat, closure calculations, and Land Survey Reference Reports to Johnson County Public Works (JCPW) with $25 check for survey review fee made payable to Johnson County Public Works. Survey shall comply with Minimum Standards adopted by the State Board of Technical Professions, but will not be checked in detail for these minimum standards.
2. The county engineer reviews survey plat and when it complies with standards stamps approval.
3. The county engineer will not review survey unless they are to be recorded at the Register of Deeds. After county engineer approval the surveyor will deliver survey plat to the Records & Tax Administration and pay the statutory recording fee of $8 for first page and $4 per page per additional page.

Check Items
1. Submit one original ink on mylar or 24# bond paper no larger than 36" x 30". No white out, correction tape, tape or appliqué film is allowed on the original. Blueprint copies are not acceptable. Folded copies of the original are not acceptable.
2. Title shall be SURVEY. Other titles such as Certificate of Survey, Plat of Survey, Lot Split, Elevation Survey, etc. are not allowed.
3. Survey shall include a Description of Record (Parent Tract is ok for lot splits); this would be the deed description of the tract or parent parcel. If the surveyor is suggesting a new legal description, it should also be shown with a title such as Recommended Description. If the survey is intended to be used for splitting property, include a recommended description for each new tract. (The survey plat does not create new parcels; deeds will have to be recorded using the new descriptions in order to create new parcels.)
4. Survey will include Owner Name or Requestor. (When indexed at Register of Deeds the Surveyor will be shown as the Grantor and the Owner or Requester as the Grantee.)
5. Monuments were set at all corners of tracts surveyed unless survey contract is provided to JCPW showing surveyor is not required to set corner monuments for tracts surveyed. Found and set monuments shall be clearly labeled as to type and size including cap type and inscription or imprint if applicable. Curb cuts are not considered monuments. The description "iron bar" is not an acceptable description for a rebar.
6. Double monumented corners: If a found monument is too far out of position to accept, set another monument. Bearings and distances must be to monuments. Unmonumented "true corners" are not allowed.
7. Double corners at boundaries with a previously platted subdivision will not be allowed without prior consultation with the County Engineer.
8. Adequate control and dimensions are shown so that the survey can be retraced; this is usually the bearings and distances to monuments found to establish the exterior boundary.
9. All government corners used for control are shown and the monuments properly described with their origins and the bearings and distances between them (usually half mile distance).
10. Basis of bearings is indicated. Do not refer to an odd bearing on section line unless the origin of that bearing is stated. Provide the document's book and page if a deed or survey is cited. Use Grid North, Kansas North Zone for new descriptions in unplatted areas or match an adjacent subdivision plat. Assumed bearings are not allowed for new descriptions.
11. Land Survey Reference Reports not more than one year old must be on file for each corner used for control. Only complete, original, two page reports will be accepted. Reports must be complete and include the detailed method of recovery or establishment. Surveyors are responsible for submitting reports to the Kansas State Historical Society.
12. Closure calculations were submitted for legal descriptions.
13. Drawing is accurately drawn to scale. The scale shall be indicated under the north arrow and include a graphic scale.
14. Shading should be kept to a minimum for scanning purposes. Shading, cross hatching, and lines shall not obscure text and numbers.

Note: Norm Bowers, retired from Johnson County’s Engineering Department and current KAC Engineer, led four sessions on “B S for CL” during Spring 2007. Reading plans and using surveying equipment were program highlights. About 100 crew members attended. Keep an eye on our training calendar for the next series of these classes.
important that old documents be converted to electronic format to help preserve the records and make the information more readily available.

To ensure that files are up to date on existing and new conditions, contractors in Lyon County are monitored when they are working on the roads. The county has a permit that contractors must fill out before they can do any work within the road right-of-way.

It is important to note that in Lyon County, the majority of county and township roads are easement roads, meaning that the county does not have a deed to the land. The county only has the right to maintain the roadway and ditches to keep the road open for public travel; the land underneath the road still belongs to the adjoining landowner. When new roads are built, it is up to the local government to decide if they want a permanent easement or purchase the land. In cases when the road is improved, the county will purchase the right of way and obtain a deed to it, and mark the new right-of-way with 5/8” x 24” rebars with Lyon County caps. The county does not typically mark the right-of-way limits for private property, but encourages landowners to have the right-of-way surveyed by a land surveyor if they are going to be putting up a new fence.

When Lyon County does a road or bridge improvement project that requires additional right-of-way, they either obtain a permanent easement or a quit claim deed. If they obtain a permanent easement, the title to the land remains with the landowner and they just have an easement to use the land as long as the county maintains the road or bridge. With a quit claim deed, the county purchases and owns the land.

Woods also works closely with any surveyor when it comes to identifying section corners. He will provide a backhoe or grader to excavate in the gravel roads for finding corner stones once the surveyor has performed the preliminary field work and notified Dig Safe. There is no charge for this service as long as the surveyor locates or reestablishes the corner and supplies the county with the new Section Corner Reports. Lyon County will also provide a crew and equipment to excavate in the county asphalt roads and provide the cold mix to repair the surface once the work is completed, again at no cost as long as the county gets the Section Corner Reports. This service is provided because Woods feels that the maintenance of these section corners is the responsibility of the county. Because the county does not have a full time survey crew, Woods has to rely on other land surveyors to do the field work to locate the corner positions.

**Johnson County checklist**

Johnson County has created a checklist with procedures and items that have to be checked to properly complete a survey, and can be found at [http://www.jocogov.org/pubwrks](http://www.jocogov.org/pubwrks/).

---

**Surveying, continued from page 2**

The Kansas Road Scholar Program has recently made some changes. Initially founded in 2000 by KCHA, KS LTAP, KDOT, and KAC, it was known as the Kansas County Road Scholar Program. In February 2007 the program was renamed the Kansas Road Scholar Program and expanded from including only counties to including cities and townships as well.

The number of levels in program has increased to three. Those levels are: the Technical Skills Program, the Supervisory Skills Program and the Executive Development program. (Road Scholar, Advanced Road Scholar and Master Road Scholar, respectively.)

The primary purpose of the program is to promote a skilled workforce for Kansas public works agencies. For more information, contact KAC at (785) 272-2585 or KS LTAP at (785) 864-2594 or visit the Kansas Road Scholar Web site at: www.ksroadscholar.org. To request a program flier, go to page 15.

---

**It’s official: Road scholar program expands to cities and gets a new name**

As a special incentive to get cities enrolled in the Kansas Road Scholar Program, KS LTAP provided 25 free Road Scholar Program Level I class registrations at the annual APWA Kansas Chapter meeting in Junction City during the week of April 16th.

The winners of the drawing for 5 free class registrations each, are: Gary Baugher—Arkansas City; Christina Cook—Junction City; Kyle Sulzman—Hays; Jim Haag—Franklin County; and Scott Heavin—HNTB.
## Schedule of Classes for the Kansas Road Scholar Program

This information provides an overview of the Kansas Road Scholar class schedule—which agency monitors the class and the presentation schedule. Classes are offered at least twice every other year. Monitoring agency contacts are listed at the end of this page. For more detailed information please refer to the Kansas Road Scholar Program brochure.

<table>
<thead>
<tr>
<th>Class</th>
<th>Presenting Agency</th>
<th>Frequency of Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level I – Technical Skills Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culverts, Drainage and Levee Maintenance</td>
<td>LTAP</td>
<td>Annually (Spring)</td>
</tr>
<tr>
<td>Risk and Liability Issues</td>
<td>LTAP</td>
<td>Odd years (Summer)</td>
</tr>
<tr>
<td>Snow and Ice Control</td>
<td>LTAP</td>
<td>Annually (Fall)</td>
</tr>
<tr>
<td>Gravel Road Maintenance</td>
<td>LTAP</td>
<td>Annually (Spring and Fall)</td>
</tr>
<tr>
<td>Asphalt Road Maintenance</td>
<td>LTAP</td>
<td>Annually (Spring)</td>
</tr>
<tr>
<td>Concrete Road Maintenance</td>
<td>LTAP</td>
<td>Annually, beginning in 2008</td>
</tr>
<tr>
<td>Workplace, Equipment and Job Site Safety</td>
<td>LTAP</td>
<td>Annually (Spring/Summer)</td>
</tr>
<tr>
<td>Signing and Pavement Markings</td>
<td>LTAP/TASK</td>
<td>Annually</td>
</tr>
<tr>
<td>(Also called “MUTCD for Technicians”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Zone and Traffic Control Safety</td>
<td>LTAP/TASK</td>
<td>Annually</td>
</tr>
<tr>
<td>(Also called “MUTCD for Technicians”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County Government 101</td>
<td>KAC</td>
<td>At least every other year</td>
</tr>
<tr>
<td>City Government 101</td>
<td>KAC</td>
<td>At least every other year</td>
</tr>
<tr>
<td>Service Excellence in Local Government</td>
<td>KAC</td>
<td>At least every other year</td>
</tr>
<tr>
<td><strong>Level II – Supervisory Skills Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Supervision</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Legal Aspects of Supervision</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Communication Skills for Effective Supervision</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Managing Employee Performance</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Coaching and Positive Discipline</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Providing Employee Safety</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Enhancing Cooperative Work Relationships</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Problem Solving for Effective Supervision</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Public Works Issues I</td>
<td>LTAP</td>
<td>Even years (Summer)</td>
</tr>
<tr>
<td>Public Works Issues II</td>
<td>LTAP</td>
<td>Even years (Summer)</td>
</tr>
<tr>
<td><strong>Level III – Executive Development Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Leadership</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Basics in Budgeting, Finance and Reporting</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Overview of Human Resource Management</td>
<td>KAC</td>
<td>Even years</td>
</tr>
<tr>
<td>Effective Community and Media Communication</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Effective Mgmt. of Intergovernmental Relations</td>
<td>KAC</td>
<td>Odd years</td>
</tr>
<tr>
<td>Project Planning and Management</td>
<td>KDOT/LTAP</td>
<td>Odd years</td>
</tr>
<tr>
<td>Legal, Permitting and Regulatory Processes</td>
<td>KDOT/LTAP</td>
<td>Odd years</td>
</tr>
<tr>
<td>Asset Management and Cost Accounting</td>
<td>KDOT/LTAP</td>
<td>Odd years</td>
</tr>
<tr>
<td>Local/State Project Coordination</td>
<td>KDOT/LTAP</td>
<td>Even years</td>
</tr>
<tr>
<td>Overview of Engineering Functions in Public Works</td>
<td>KDOT/LTAP</td>
<td>Even years</td>
</tr>
</tbody>
</table>

**Monitoring Agencies:** **LTAP:** KS LTAP, Lawrence, KS, Rose Lichtenberg, (785) 864-2594; **KAC:** Kansas Association of Counties (KAC), Topeka, KS, Sarah Meyer, (785) 272-2585; **KDOT/LTAP:** See LTAP.
The value of education is recognized by both engineering students and their potential future employers. However, the transition from the classroom to the “real world” can be, well, rough. Internships bridge the gap between theory and practice, and give student the opportunity to gain practical, field-based experiences—important to both student and employer alike.

Internship opportunities for engineering students here in Kansas can be found in both the private and public sectors, from nationally-recognized firms to local government road and bridge departments. Read below to get some insight from two individuals who have taken on engineering interns, and what they learned about the costs and benefits of offering internships, as well as how to develop a strong intern program.

A good test of skills
An internship experience allows students to “test out” both the agency they are working for and their own skills, according to Missy Fletcher, from the Human Resources Department at Olsson Associates. The company is based out of Lincoln, Nebraska, but Fletcher works with the internship program in their Overland Park office, which hires from 7 to 10 interns each summer. The selection process is very competitive and the interns get experience in a variety of areas.

“We try to get them as involved in projects as we can, and they might work on drafting, load calculation, or whatever they are up to,” Fletcher said. “We really try to not limit them, and let them take on as much as they can.”

Large private firms are not the only entities that see the benefits of an internship—Steve Cottrell, city engineer for Garden City, knows the advantages first-hand:

“When I got out of college I had worked one summer for a small consulting firm, so I had a hint of the experience, but I hadn’t really sat down and done designing, etc,” Cottrell said. “An internship explains the why’s and wherefore’s of what you learn in the classroom, and you actually get to see and do things in the real world.”

Cottrell’s experience hiring interns at Garden City is on a smaller scale than Olsson Associates; he hires them one at a time, from the local high school and Garden City Community College. He said that his budget has always been the deciding factor for whether or not he could take on a summer intern. Those he has hired were productive.

“They have done quite well—they are usually pretty decent CAD operators, and they have a good head on their shoulders and pick up things quickly, and with a little bit of direction they can go into minor design work. Overall, I have been pleased,” Cottrell said.

Fletcher agrees. “[The interns’] work is very good, and usually they are harder on themselves than we are,” she said. “They might start out nervous or tentative, but once they get into it they get comfortable.”

While the interns are gaining all that experience, their work is benefiting the employer, but that isn’t the only reason for an agency to offer internships. Fletcher emphasized that internships help put that company or agency on the student’s radar for a possible job after graduation—or another summer internship.

“We have several students who might come back the next summer, and we have a graduated pay system for those students who do come back,” Fletcher said.

Even better for Olsson, almost half of the interns accept full-time salaried positions with the company after they graduate.

How much to pay?
Students cannot expect the same compensation everywhere. Fletcher said that most of the interns hired by Olsson have previous experience, and the hourly wage for the interns ranged from $12 to $15 an hour. Garden City can’t touch that. Cottrell’s budget allows him to take on help when he can afford it, and he said the pay averaged about $8 an hour. However, students get valuable experience in both instances.

Developing an intern program
For Olsson Associates, the biggest challenge is getting their name out to students, because of the number of internships they offer.

“We do a lot of recruiting at career fairs—K State, KU, in Kansas City—all of the schools that have engineering departments. We also post on career sites at different schools, and work with their career services,” Fletcher said.

One new idea that Olsson Associates is implementing is a year-
The following Road Scholar participants have earned a certificate from Spring 2006 through Spring 2007.

### Level I — Technical Skills Program

**Spring 2006**
- Rocky Brown, Barber County
- Bob Caley, Riley County
- Mike DeWilde, Jefferson County
- Kevin Ellis, Saline County
- Rod Meredith, Riley County
- Walter Noll, Johnson County
- Todd Rhyne, Jefferson County
- Willie Vidrickson, Saline County

**Fall 2006**
- Tom Brannon, Norton County
- Pat Choens, Butler County
- Roy Dornes, Coffey County
- Danny Frye, Coffey County
- Howard Hemphill, Douglas County
- David S. Hoffman, Ellis County
- Larry Holmes, Butler County
- Mark Jones, Butler County
- Robert Kraus, Sedgwick County
- Roger Nelson, Riley County
- Terry Peterson, Butler County
- Kelly Fletcher, Butler County
- Don Towns, Douglas County
- Ken Walker, Saline County
- Lee Roy Wolf, Butler County

### Spring 2007
- John Achatz, Rice County
- Lyle Blankenship, Bruno Township, Butler County
- Doug Byarlay, Riley County
- Joe Collins, Riley County
- James Herzet, Marion County
- Curt Hoffman, Riley County
- Roger Holtz, Miami County
- Gary Koehler, Douglas County
- James Kraft, Coffey County
- Leland Kraft, Coffey County
- Charlie Nichols, Douglas County
- Bill Osborne, Butler County
- Donald Ramsey, Kansas City
- Harold Starkebaum, Miami County
- Dennis Stottlemire, Douglas County
- Brian White, Johnson County
- Larry Wilson, Johnson County
- Dennis Wray, Douglas County

**Level II — Supervisory Skills Program**

**Spring 2006**
- Robert Reed, Coffey County
- Doug Young, Coffey County
- John Zuern, Coffey County

**Fall 2006**
- Randy Blehm, Meade County
- Pat Choens, Butler County
- Mark Painter, Meade County

I think you just roll with the flow of what that particular person’s skill level is when they come in,” Cottrell said. “If the person is more interested in field engineering and construction, then send them into the field, where they can watch, learn and test their knowledge. It just depends on what their skills are.”

Fletcher has found that getting her interns involved in projects is the most important ingredient of a successful internship program, because it is what makes the internship more attractive for students.

“I think what makes our opportunity desirable is that we have a fun atmosphere, and we try to keep things pretty casual,” Fletcher said. “But more importantly, we let the interns have involvement in projects. They aren’t just getting coffee; they are involved in projects they can see being built, and they can say “I helped with that.”

Fletcher added that a final perk also entices students: “We have unique work hours—we are out early on Fridays, so everyone likes that in the summer.”

round internship position at their office in Manhattan, Kansas. Fletcher said that the idea had been used in the Lincoln office for students at the University of Nebraska, and that KU students have commuted from Lawrence to Overland Park, but the idea was new to Manhattan.

“This is just one more opportunity we can offer, and we are always trying to introduce our business to students,” Fletcher said.

Cottrell does not recruit, as he usually knows the student beforehand. He said that he found each internship to be a learning experience for himself, as well as the intern.
Pedestrian safety plans

Pedestrians can get lost in the bustle of automobiles when it comes to roadway attention and safety improvements. Some cities in the U.S., however, have plans specifically aimed toward the establishment and preservation of safer pedestrian traffic. In this article we’ll walk you through a few plans on both coasts, then trek back to Kansas City for a plan closer to home.

Portland Pedestrian Walking Plan
The City of Portland, Washington, created a 20-year vision in 1998 to encourage walking as a method of transportation and to reduce reliance on the automobile. In its 116-page plan, it focuses on ensuring safety, convenience, and accessibility for pedestrians from policy development through recommended capital projects and funding strategies.

Portland made use of the Pedestrian Potential Index to estimate the likelihood of pedestrians in certain areas. The index uses a point system based on location importance, walking distance, and an area’s general appeal to walkers. Added up, these points indicate the potential likelihood of pedestrians in certain areas to make it easier for the city to pinpoint which areas need the most attention.

The plan also employed a Deficiency Index, which alerts the city about areas in need of improvement for pedestrians. Improvements could be sidewalk repairs or reducing driving speeds, to name a few.

Cambridge Pedestrian Plan
Cambridge, Mass., devised a plan in 2000 with four major goals: 1) develop policies to make walking safer, easier, and more attractive, 2) provide design standards for physical improvements, 3) encourage walking and discourage automobile dependency, and 4) provide an action plan for a pedestrian transportation network connecting the city.

The plan emphasizes urban planning and development standards. More specifically, it suggests adding more public-domain buildings to the city’s unique merged pathways through various public buildings, private lobbies and public streets.

The plan also emphasizes the importance of protecting sidewalks for pedestrians by regulating the placement of light posts, bicycle parking, trash cans, benches, and more. A distance of more than two feet between the said object and the sidewalk is required.

The plan lists pedestrian-vehicle control measures in a chart, with 32 suggestions to prevent traffic from interfering with walkers and vice-versa. These measures are split into three categories: Separate Pedestrian Facilities, Crosswalks and Traffic Controls and Traffic Calming. Examples of implementations in the city and their potential outcomes are provided, along with photographs.

Kansas City’s plan calls for a pedestrian impact study when a traffic study is performed to determine which areas need safety and accessibility improvements.

Sources:
Exemplary Pedestrian Plans 2005:

Kansas City Walkability Plan:

Cambridge Pedestrian Plan:
http://www.ci.cambridge.ma.us/CDD/et/ped/plan/ped_plan.html

Portland Master Pedestrian Plan:
https://www.portlandonline.com/transportation/index.cfm?a=90244

continued on page 11 ➤
APWA leads in promoting diversity

... by Kelly Heavey .................

Diversity. When you hear the word, what do you think of? It’s not just about race or gender. According to the American Public Works Association (APWA), diversity also encompasses religious beliefs, age, lifestyle, national origin, disability, personality, educational background, and income level. Diversity isn’t a bad word, and in the office, it’s not a huge hurdle to overcome once you set your mind to it. If you need somewhere to start, APWA has a diversity committee just for you.

The committee’s Web site is a gold mine of sources. It has links to survey results, committee minutes and diversity resources. It provides 29 articles on the topic of diversity, ranging from generational differences to developing diversity plans. The articles date back to 2003.

The article “Diversity for engineering: Partnering for a change” explores the relatively low number of women and minority engineers and how to work toward changing that. “Road map to an effective diversity plan” lays out the steps to incorporate the concept into your public works organization. The articles are mainly written by public works professionals across the country, so they are writing from their own experiences.

Components of a diverse organization—from Tempe, AZ

- Support from leadership
- Diversity training
- Safe haven for discussing issues
- Diversity action plan with measurable outcomes
- Systems of communication that are inclusive
- Fair hiring and promotional practices
- Inviting those affected by a decision to be part of the decision
- Flexibility; remember, there are different paths to success
- Accountability; Why say we support diversity if we do not enforce the rules and regulations that reinforce the message?
- Coaching/mentoring program
- Identifying a similarity from which to bridge our differences

Kansas City Metro’s chapter is mentioned for a successful diversity luncheon it held, which discussed various religions and cultures in the Kansas City Metro area and was followed by questions and discussion. Another event the KC Metro chapter held was the November chapter luncheon, where members discussed the Habitat for Humanity program, “Women Build 2007: Women Together Changing Lives One House at a Time.”

KC Metro’s APWA chapter’s Web site is http://www.kcapwa.net/

To see the resources on APWA’s diversity committee Web site, visit http://www.apwa.net/About/Board/diversity.asp

Brenda Herrman, director of public works for City of Hays, KS, has been invited to speak on a panel at a technical session entitled, “Professional Women in Public Works” at the APWA Congress in San Antonio, TX, this coming September. Congrats, Brenda!

Here are some articles available from APWA:

- “Recognizing the benefits of women in public works”
- “Diversity and legal implications”
- “How diversity benefits municipalities”
- “Generational workers = higher performance”
- “Road map to an effective diversity action plan”
- “Thoughts on today’s generational divide”

APWA’s diversity statement

The American Public Works Association recognizes, appreciates and fosters the synergy which is created when the work environment values the differences in individuals and practices inclusiveness and open communication.
Despite the fact that there are good jobs with excellent benefits and opportunities for advancement in government, transportation agencies are having trouble recruiting and retaining qualified personnel. Many public agencies lose to private sector competition.

In response, some government agencies are developing creative programs to make changes in the normal work environment and address work force issues. The National Highway Institute has identified different innovative practices being used by various state transportation departments. The practices are broken down into the categories of recruitment, retention, staff development, organizational change, and succession planning. A description of all programs that are identified can be found at: http://www.nhi.fhwa.dot.gov/transworkforce/innovative.asp#CAT

While the programs identified by NHI are at the state level, some could be modified for use by local agencies. Here are a few examples:

**Recruitment**

*Colorado DOT*: Their internship programs include students from engineering as well as planning, project monitoring, and communications. They partner with local businesses to sponsor grants and or scholarship funds for interns.

*Iowa DOT*: Offers free educational courses, immediate full-time employment, advancement opportunities, variety of career choices, and paid on-the-job training.

*Kentucky Transportation Cabinet*: Has a scholarship partnership with the University of Kentucky, offering a scholarship in return for full time employment after graduation.

*New York DOT*: NYSDOT spends about $30,000 a year on recruiting. The department uses resumes instead of tests for recruiting, and can hire a candidate well before graduation. They have an adopt-a-college program to give students a broad perspective on NYSDOT projects and work environment.

*North Dakota DOT*: Created the Department of Transportation Support Center at North Dakota State University to provide internships to junior and senior engineering students and allow them to work with design aspects of actual DOT highway projects.

**Retention**

*Maine DOT*: With rising complaints about co-worker behavior, a mediation group was brought in. The result is that each division work crew identified its unique norms and behaviors and each crew wrote a "crew credo" that all crew members
Example of a Crew Credo

As members of the crew, each of us plays an important role in the safety and well-being of our families, community members, and citizens [of the State of Maine]. As workers with these responsibilities, we have the rights to:

- Trust that each crew member is doing a thorough job
- Be talked to as a crew and not as individuals regarding work plans
- Be trusted to do our jobs well
- Be given clear and consistent directions
- Be appreciated for good work
- Be told why things are done a certain way
- Have input on how things are done
- Be treated as knowledgeable adults
- Know work plans at least a day in advance

To provide these rights, and to meet our responsibilities, we promise, by signing below, to practice the following behaviors:

- To look out for each other’s safety and inform each other when they have done something that is unsafe
- To tease, and to let each other know when it’s gone far enough (don’t do damage)
- To assist each other with each other’s work load
- To read each other’s mood and act accordingly
- To appreciate each other
- To equally share job responsibilities
- To come to work with a positive attitude

Pedestrian plans, continued from page 8

The Walkability Plan seeks to raise that statistic by revising city street standards to enhance pedestrians’ accommodation and safety. That is also a goal of the FOCUS Kansas City Plan, which is a leading document for transportation development in the city.

Suggestions in the Kansas City Walkability Plan include traffic-calming mechanisms, sidewalks on both sides of streets and funding/prioritization programs. Specific suggestions are to establish walking paths to connect homes to schools, shopping districts, etc., as well as to develop plans for central city neighborhoods, including windows and art on the walls of buildings to create a more pleasurable walking environment.

In determining projects, the Walkability Plan considers its five levels of pedestrian service. Those levels are: directness (the shortest route), continuity (free from gaps and barriers), street crossings (safe pedestrian crossing), visual interest and amenities (attractive environment) and security (pedestrian easily visible.)

The Walkability Plan also calls for a pedestrian impact study when a traffic study is performed to determine which areas need safety and accessibility improvements. The results of each pedestrian impact study in Kansas City are recorded and placed on a Walking Facility Needs Map. The map is divided into 18 areas all over the city to prioritize pedestrian improvements and to conduct assessments of high need areas, said Gerald Williams, AICP, of Kansas City’s Planning and Development Department.

“We can now objectively answer the question: Is this intersection, street or neighborhood walkable?” said Williams.

Many cities across the nation have realized the importance of walking as a form of transportation and to promote health. Portland, Cambridge, and Kansas City are three examples. Does your own city have a pedestrian plan? Remember, vehicles aren’t the only “moving objects” out there.
KDOT and contractors have new partnership for training road construction crews

KDOT, as well as many local governments in Kansas rely on contractors for some aspects of road construction and maintenance. KDOT and the Kansas Contractors Association are teaming up to help ensure contractors’ employees are better trained.

“The program is designed for contractors right now, but we expect to open it up to local government workers in the future.”

KDOT will oversee the program’s curriculum, and have the option of sending its own employees to the relevant courses. In turn, KCA will be charged with providing the instructors, facilities, materials, and administration to organize the courses, which will be held across the state.

The program is designed to give “craft level” construction workers additional skills for career advancement, which should increase the construction industry’s retention rates. And it will generate awareness to attract new workers to the industry, including women and minority workers.

“Attracting workers to the construction industry has been particularly challenging in recent years,” said Mike Morrand, President of KCA and Carrothers Construction Company. “Through this training program, we will help provide more workers a career path, which serves as both a recruitment and a retention tool for the industry. And in turn, Kansans will benefit from having a more skilled workforce building and maintaining their roads.”

A full class schedule is expected by Fall 2007, said Karen Wagaman, marketing director for the KCA.

OSHA 10-hour classes will be taught, along with basic construction skills, hands-on heavy equipment operation, and classes in English for Spanish-speakers and Spanish for English-speakers. Classes will be taught at contractor and vendor facilities, and at some other locations, like Cabela’s.

For more information, visit http://www.kansascontractors.org/


Surveying, continued from page 4

Johnson County does note that to create a new tract of land or new descriptions of record, you must file the deed for splitting the tracts or file the deed using the new description; completing the survey alone will not accomplish these tasks.

The checklist is on page 3 and is intended to inform all parties of the requirements and rules by which surveys are reviewed within the county.

An effective public works leader... empowers OTHERS

... by Patricia Hilderbrand, P.E. Planning Group Leader, City of Kansas City, Missouri.

Note: The APWA Leadership and Management Committee has published the brochure entitled Public Works Leaders’ Core Competencies. The brochure is based on a survey of public works officials and those who employ them to determine the most important characteristics of an effective public works leader. These core competencies help public works professionals recognize and develop leadership talent. “Empower Others” is one of a dozen core competencies recommended by the committee. For more information, visit www.apwa.net.

So often we hear the term “empowerment,” and most say they believe in it and do it. But what does it really mean? It has become a catchall term for a wide variety of ideas on employee power and responsibility. At its broadest definition it means giving employees the power to do their job, but do we really know how to do that? And, perhaps more importantly, are your employees ready to be empowered?

To effectively empower your staff, first create an environment of support and open communication. Their career development and success is the cornerstone to a successful department. Do you have confidence that your staff has the right knowledge, ability, experience and resources to do the job? If so, make sure they know how confident you are. Guiding their work without micromanaging or completing their tasks for them, establishes a positive working environment.

Also inherent in that support is the concept of trust—”giving permission to fail.” Managers need to trust that an employee will always do his or her best. Equally, the employee has to trust that if and when things go wrong, the manager will stand behind the employee in support of their effort. An organizational climate that neither allows for mistakes nor embraces the learning opportunity will discourage taking risks and cripple creativity and initiative.

Managers should ensure that required department processes are well documented and that performance expectations are clear. When changes occur, make certain to share them in a timely fashion, so everyone feels “plugged in.” Empowered employees understand their responsibilities as well as the limits of their authority to get things done. Which decisions can they make and which their supervisor must approve? Delegating the authority as well as the responsibility is critical to empowerment.

And, at the end of the day, the employees should be held accountable not only for their failures, but for their successes as well. If the goals were not met, you are there to provide perspective and guidance, but not to take over and solve the problem. An important aspect of empowerment is employees learning to take responsibility for their actions, solve problems and learn from their mistakes. When things go well, and they will, you are there to praise their work and provide appreciation and recognition for a job well done.

In high-performance organizations, leaders enable their employees to do their best work. They have the right tools, systems, policies, and procedures. They are incredibly well-trained. And, ultimately, they are trusted.

Do you embrace these principles of an empowered organization?

—Believe that leadership belongs to all employees, not just a few
—Know that the department will be successful when employees have the tools, training and authority to do their best work
—Understand that information is power...and share it with all employees
—Value employees enough to build an environment that supports and encourages individuals
—Understand that empowerment is a continuous process, not an endpoint to be checked off a list of objectives

In the end, when employees are truly empowered, you will have created an atmosphere that encourages responsibility and decision-making, requires personal accountability for actions and outcomes, and establishes an environment of trust that allows people to function without excessive oversight.

Source: www.apwa.net

Patricia Hilderbrand can be reached at (816) 513-2576 or at patty_hilderbrand@kcmo.org.
Reviews

Don’t be an IMPAIRED Driver—poster
This poster is intended for anyone who drives. It combines cartoon-style illustrations with hard-hitting statistics on drinking and driving, cell phone use, drowsy driving, drug impairment, and challenges for older drivers. The number of crashes as well as the estimated financial costs are included to make people aware of the impact of impaired drivers. KS LTAP 2007.

Road & Bridge Tasks in Kansas—glovebox card
This card is intended to help local governments in Kansas determine which road- and bridge-related tasks must be completed by a licensed engineer (or under the direct supervision of a licensed engineer), and which tasks do not. Topics include engineering, road and bridge construction, maintenance of road network, planning and zoning, safety, and administration. KS LTAP 2007.

Calendar

See our web site for even more calendar listings.
Go to www.kutc.ku.edu and click on “Training Calendar.”

May 7-9
2007 KCHA Spring Conference
Great Bend, KS
Phone: 785 864-2594
Fax: 785 864-3199
Email: rosemary@ku.edu
www.kutc.ku.edu

May 22—Topeka
May 29—Hutchinson
Risk and Liability Issues Workshop ▲T
(Register for Event)
Contact: Rose Lichtenberg, LTAP Training Coordinator, 785/864-2594, rosemary@ku.edu.

▲T = KS County Road Scholar Program—Level 1 Technical skills required course

▲M = KS County Road Scholar Program—Level 3 Master Road Scholar required course

Contact: Kansas State University-Division of Continuing Education
Phone: 785-532-5569

*For information on calendar items indicated with an * or to suggest a topic for an LTAP workshop, contact: Rose Lichtenberg, LTAP Training Coordinator, 785/864-2594, rosemary@ku.edu.

... 2007 .......

May 30—Wichita
May 31—Topeka
Fundamentals of Leadership ▲M
Contact: Sarah Meyer, KAC
Phone: 785-277-2585

June 24-27
9th International Conference on Low Volume Roads
Austen, TX
Contact: Jay Jayaprakash
Phone: 202-334-2952
Email: gjayapr@nas.edu

July 10-12
Access Management, Location & Design in Wichita
Contact: Rose Lichtenberg, KS LTAP
Phone: 785 864-2594
Fax: 785 864-3199
Email: rosemary@ku.edu
www.kutc.ku.edu

Summer 2007
GIC 101: Intro to GIS
Dates and places TBD

Summer 2007
GIC 201: More about GIS
Dates and places TBD

August 2007
APWA Equipment Roadshow
Junction City, KS
Call Rod Meredith, 785-339-2981

August 8—Hays
August 9—Emporia
Effective Community & Media Communication ▲M
Hays, KS
Contact: Sarah Meyer, KAC
Phone: 785-277-2585

September 5-6
KDOT Maintenance Expo in Salina, KS
Call Jaci Vogel, KDOT, 785-296-3576

September 9-12
APWA International Public Works Congress and Exposition
San Antonio, TX
Contact: APWA at 817-277-7187
Fax: 817-277-7616
Website: www.apwa.net/congress

Fall 2007
Workplace Job Site Safety ▲T
3 locations

October 6-8
League of Kansas Municipalities Overland Park, KS
785-354-9565

October 9-12
The National Traffic Management & Work Zone Safety Conference
(Registry for Event)
 Ft. Lauderdale, FL
Website: www.workzonesafety.org

October 23 and 24
MINK County Engineers Meeting
St. Joseph, MO
Contact: MO LTAP
Phone: 573-541-7200
Fax: 573-541-4729

November 18-20
Kansas Association of Counties 32nd Annual Conference & Exhibition
Wichita, KS
Contact: Sarah Meyer,
Kansas Association of Counties
Phone: 785-277-2585

... 2008 .......

May 5-7
Kansas County Highway Association Spring Conference
Manhattan, Kansas
Phone: Daryll Lutz at (316)322-4101
email: dlutz@bucoks.com

May 18-21
National Roundabout Conference
Kansas City, MO
Contact: Richard Pain, TRB
Email: RPain@nas.edu

...
Free Resources

Check off your selections, fill in the bottom portion, and return this form to:
KUTC Materials Request, 1530 W. 15th St., Room 2160, Lawrence, Kansas 66045
or fax to 785/864-3199

CDs and DVDs .................
We offer free copies of non-copyrighted CDs.

❑ Don’t Be an Impaired Driver!—poster
❑ Road & Bridge Tasks in Kansas—glovebox card
❑ Guide for Accommodating Utilities Within Right-of-Way for Counties and Small Cities in Kansas
  Kansas LTAP 2007.
❑ Troubleshooting Two-Cycle Engines—fact sheet
  Kansas LTAP 2007.
❑ Road Closure Tips—fact sheet
  Kansas LTAP 2007.
❑ Roadwise “Spring Cleaning”
  Kansas LTAP 2007.
❑ List of engineering and technical schools in and near the State of Kansas
  Kansas LTAP 2007.

Publications ............
You are free to keep these unless otherwise noted.

❑ Guidelines for the Selection of W-Beam Barrier Terminals—CD
❑ Road & Bridge Tasks in Kansas—glovebox card
❑ Guide for Accommodating Utilities Within Right-of-Way for Counties and Small Cities in Kansas
  Kansas LTAP 2007.
❑ Troubleshooting Two-Cycle Engines—fact sheet
  Kansas LTAP 2007.
❑ Road Closure Tips—fact sheet
  Kansas LTAP 2007.
❑ Roadwise “Spring Cleaning”
  Kansas LTAP 2007.
❑ List of engineering and technical schools in and near the State of Kansas
  Kansas LTAP 2007.

Order Form .............................................

Name ........................................ Phone number ........................................
Position ........................................ E-mail address ........................................
Agency ...........................................
Street Address ...................................
City ........................................ State ........................................ Zip+4 ...................................

❑ send materials indicated
❑ address correction
❑ add to newsletter mail list

Note: Our video and publication catalog is accessible online, in a searchable format. Visit:
www.ksltap.kutc.ku.edu

*For requests outside the United States: After receiving your request, we will notify you of the postage cost and will send materials after receiving payment for postage.
Let us at the KUTC help you find the answers to your transportation-related questions.

KUTC, 1530 W. 15th St. #2160, Lawrence, KS, 66045
Call 785/864-5658 (fax 785/864-3199)
www.ksltap.kutc.ku.edu

The Kansas Local Technical Assistance Program (LTAP) is an educational, research and service program of the Kansas University Transportation Center (KUTC), located in the University of Kansas School of Engineering. Its purpose is to provide information to local and county highway agencies and transportation personnel by translating into understandable terms the latest technologies in the areas of roads, highways and bridges.

The KUTC Newsletter is one of the KUTC's educational activities. Published quarterly, the newsletter is free to counties, cities, townships, tribal governments, road districts and others with transportation responsibilities. Editorial decisions are made by the KUTC. Engineering practices and procedures set forth in this newsletter shall be implemented by or under the supervision of a licensed professional engineer in accordance with Kansas state statutes dealing with the technical professions.

Winter 2007 issue—Copyright © 2007 by the KUTC. All rights reserved. Reproduction of material in this newsletter requires written permission.

KUTC Executive Director . . . . . . . . . . . . . . . . . . . . Pat Weaver
LTAP Directors . . . . . . . . . . . . . . . . . . . . . . . . . . Pat Weaver and Tom Mulinazzi
Editor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Lisa Harris
Contributors . . . . . . . . Jacob Bustad, Kelly Heavey, Collin Koranda

KUTC Resource and Education Staff
Traffic and Hwy. Engineering . . Tom Mulinazzi / Steve Schrock
Road Surface Mgmt./Soils ................. Bob Parsons/Jie Han
Bridge Structures, GIS and CAD . . . Carl Kurt, Bryan Young
Engineering Computer Applications . . Mehrdad Givechi
Drainage ..................................... Dave Parr
Environmental Engineering .............. Dennis Lane
Specialized Transportation ............... Pat Weaver
Publications Manager (785) 864-2590 . Lisa Harris
Training Manager (785) 864-2594 . . . Rose Lichtenberg
Lending Library Coordinator (785) 864-5658 . Jason Vaughan

2006-2007 LTAP Program Advisory Committee
Susan Barker . . . . . . . . . . . . . Research and Materials, KDOT
Mark Borst . . . . . . . . . . . . . . . . . Sedgwick County
Mike Brungardt . . . . . . . . . . . . . City of Desoto
Mark Huffhines . . . . . . . . . . . . . Kansas Division, FHWA
Cecil Kingsley . . . . . . . . . . . . . BG Consultants, Inc., Lawrence
Suzanne Loomis . . . . . . . . . . . . . City of Newton
Byron Low . . . . . . . . . . . . . . . . . Kansas Division, FHWA
Richard Maginot . . . . . . . . . . . . . Soldier Township
Mike McGee . . . . . . . . . . . . . . . . . City of Topeka
J. R. McMahon II . . . . . . . . . . . . . Miami County
Tim Ramirez . . . . . . . . . . . . . . . . . Prairie Band Pottawatomie Tribe
Clark Rusco . . . . . . . . . . . . . . . . . . Barton County
Jim Self . . . . . . . . . . . . . . . . . . . . . Barton County
Ron Seitz . . . . . . . . . . . . . . . . . . . Local Projects, KDOT
Bob Strait . . . . . . . . . . . . . . . . . . . . . Saline County
Bobb Stokes . . . . . . . . . . . . . . . . . . . Civil Engineering, Kansas State University
Russ Tomevi . . . . . . . . . . . . . . . . . . . . . . City of Winfield

The University of Kansas
KUTC Newsletter
K. U. Transportation Center
1530 W. 15th St., Room 2160
Lawrence, Kansas 66045-7609

Return Service Requested