



"Excellence, Service, Integrity"

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# A Message from Joe...

It has been a busy year by all accounts. With summer ending and winter fast approaching it's a great time to summarize this past summer / fall events and to look forward to next year. This newsletter highlights some of our recent successes with our Structural Engineering services team. The past summer's tragic events in Minnesota placed a focus on the importance of a sound infrastructure.

Dan Feuerborn, S.E. is an integral part of our Structural team and has written some highlights of our structural services. Please take the time to read a bit about these services and feel free to call us with any questions you may have.

Our featured project in this newsletter highlights some recent roadway work. This is part of an exciting project in providing funding assistance, traffic engineering,

environmental planning, design and construction engineering services. And of course, as is often the case, we combine our transportation and structural services to provide a seamless project to many of our clients.

We are also looking forward to celebrating our company's 5<sup>th</sup> anniversary early next year. We have some exciting announcements in the coming months as we continue to grow and improve our services.

I hope you enjoy the brief news updates provided with our newsletter and the coming holidays. I sincerely thank you.



KPLUS welcomes Don Burgeson, Larry Cole, Chris Corsini, Paula Estock, Frank Kessler, Jeff Klein, Kevin Siksta, Phil Tegeler, Kent Williams, & Brandt Zentner to our team!  
PLEASE NOTE our new Chicago Office Address  
Visit our website for current project information, KPLUS services and additional opportunities.

## Structural Engineering...



The recent Minnesota bridge collapse has everyone concerned with the condition of the nation's bridges and has reopened the debate on bridge inspection and transportation funding. DOT's across the country are struggling with maintaining and rehabilitating an aging bridge inventory. K-Plus Engineering Structural Services has the experience and expertise to assist our clients in all aspects of bridge engineering, including: inspection, load rating, scoping, programming, prioritization, hydraulic analysis, rehabilitation, design and

construction inspection.

In addition to bridges, K-Plus Engineering also provides Structural Services for a wide variety of structures, including: buildings, foundations, retaining walls, temporary shoring, cofferdams, protective shielding and more. As always, our Structural Services are delivered with the excellence, service, and integrity our clients expect from K-Plus Engineering.



A few of our most recent projects are briefly highlighted on the inside page.

continued inside

**Naperville**  
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**Charleston**  
753 Windsor Road  
Charleston, Illinois 61920  
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# Structural Engineering continued...

**Voorhees Street Bridge Inspection:** K-Plus Engineering provided a Fracture Critical Inspection for the City of Danville. The structure is a three-span thru-girder bridge, originally constructed in 1962. Inspection revealed areas of significant section loss in the main girders and floor beams. Temporary shoring has been placed in the most critical areas and the City has posted the structure until it can be replaced.

**Danville Baseball Stadium Structural Inspection:** K-Plus Engineering provided an in depth inspection of the main structural members and a general evaluation of the secondary framing members for the City of Danville. Originally built in 1946, the stadium consists of timber beams and columns. Our inspection found the overall stadium to be in good condition; however, several locations of advanced deterioration in primary structural members were discovered. Our findings, along with repair recommendations, were immediately conveyed to the City, who promptly made the recommended repairs.

**IL 104 over Horse Creek:** K-Plus Engineering provided Phase II design services for IDOT District 6 and the three-span PPC Deck Beam

bridge. The scope of work included superstructure replacement, pier repair and associated roadway work. In addition to the design work, K-Plus performed an in depth inspection of the existing superstructure, determined the available load carrying capacity and ascertained the feasibility of stage construction. Due to advanced deterioration found in the superstructure, temporary shoring was deemed necessary to support stage construction traffic.

**Fabyan Parkway over the Fox River:** K-Plus Engineering provided full time construction inspection, material testing and documentation for the Kane County Division of Transportation. The project consisted of bridge repair including deck overlay replacement, expansion joint replacement, partial depth deck repairs, parapet and wingwall modification, formed concrete repairs, cleaning and painting of existing structural steel, replacement of the lighting system, concrete median repairs, guardrail replacement and all incidental and collateral work necessary to complete the project.

## Summer Activities...



K-Plus Engineering hosted our second annual outing at the Kane County Cougars game this summer on August 9<sup>th</sup>. Over 150 K-Plus Engineering employees, guests, and their families gathered to enjoy an evening with the Kane County Cougars.

The Cougars claimed victory over the Lansing Lugnuts and a spectacular fireworks show followed. It was a very enjoyable

evening and a great opportunity to socialize outside of the day to day hectic work environment. Thank you to all who joined us. We hope you enjoyed yourselves as much as we did!

It's been the summer of babies at the K-Plus Engineering office. Four of our employees have been blessed with beautiful and healthy additions to their families, two boys and two girls. Another employee started a family this summer with a wedding in St. Lucia.

It has been just over one year since our office in Charleston, Illinois relocated and to celebrate we had an open house on October 25<sup>th</sup>. The open house allowed us to showcase some of our recent projects in the Charleston area as well as enlighten clients to the services and unique quality of service K-Plus Engineering provides.

# Featured Project...

In the early 1940's a 26,500 acre site 40 miles southwest of Chicago was developed by the U.S. Army as a manufacturing plant for munitions. This site, known as the Joliet Arsenal, became one of metropolitan Chicago's largest employers, with more than 12,000 employees during peak production years. The Arsenal provided munitions critical throughout World War II as well as the Korean and Vietnam conflicts. In 1976 the Joliet Arsenal was decommissioned, and with the end of the Cold War, it was declared excess property in 1993.

The property is now being redeveloped through the efforts of Joliet Arsenal Development Authority (JADA) which was created to facilitate the reuse of this property for job creation and economic development. One of the major developments that JADA has attracted to the site is ProLogis Park Arsenal--a 770-acre project that is intended to accommodate regional and super regional distribution centers. At full build out, the park will accommodate over 10 million square feet of distribution space.

K-Plus Engineering was retained by both JADA and ProLogis to determine the extent of roadway improvements that would be required to support the proposed development.

Initial engineering services involved the preparation of a Traffic Impact Analysis which determined that roadway improvements would be required along several routes including South Arsenal Road and Illinois Route 53. The following is a brief summary of the proposed scope of work for these routes:

South Arsenal Road - Reconstruct 3 miles of the road from IL Route 53 to Old Chicago Road to provide a 3 lane cross section.

IL Route 53 - Extend the existing four lane divided highway from south of South Arsenal Road to south of New River Road for a total length of approximately 1.25 miles. Also, the intersections of IL Rte 53 at New River Road and South Arsenal Road at

IL Rte 53 will be improved including the addition of auxiliary lanes and the installation of traffic signals.

As ProLogis' development is proposed to be completed in phases, the design work has also progressed in stages with South Arsenal Road being the focus of our initial work. Led by Mark Reznicek, the Project Manager, and James Shaw, the Project Engineer, professional engineering services provided thus far by the design team include:

- Preliminary Design, Environmental, and Drainage Studies.
- Preparation of Project Development reports for the east section of South Arsenal Road and for the intersection of South Arsenal Road at IL Route 53 as both of these locations will utilize federal funds for construction.
- Coordination with the Illinois Department of Transportation (IDOT) to secure state economic development funds (EDP) for select contracts.
- Coordination with IDOT and the University of Illinois to arrive at an appropriate pavement design that will hold up to the heavy truck traffic that will be generated by the development.
- Preparation of contract plans and construction documents for the reconstruction of South Arsenal Road.

In early August, roadway construction along the west end of South Arsenal Road was initiated. This marked the introduction of our construction staff to this exciting project as K-Plus Engineering, Ltd. has been assigned resident engineering services.

While this initial roadway work was opened to traffic this fall, roadway improvements are expected to continue through the next few years as K-Plus Engineering, Ltd. works with JADA, ProLogis, and other agencies to ensure that the area's roadway system supports the subsequent phases of the development.