

## **Meeting Minutes**

November 4th, 2009

Meeting Site: Wichita City Hall, 10th Floor

President Slade Engstrom called the meeting to order at 12:02 pm. Slade introduced this year's scholarship chair, John Oswald. John announced that we have selected a qualified award recipient for this year's scholarship award in the amount of \$1,000. Mr. Wesley Nyberg, attending Kansas State University, is this year's award recipient.

Jake Borchers introduced the speaker, Mr. Lynn Packer, from Sedgwick County, to discuss the topic "Oliver Street Washout, just north of 47th Street South". Jake noted that Lynn served as a Branch officer from 2002 to 2006. Lynn received his B.S.C.E. from San Diego State University and is a native of San Diego, California.

Lynn began by showing a vicinity map of the area of Oliver Street that was washed out. This location is just north of 47th Street South in Sedgwick County, Kansas. Lynn reminded meeting attendees that in April 26, 2009, the county received about 6 inches of rainfall in just over 36 hours in the area of Oliver Street indicated. Based on this intensity, Lynn had determined this to be close to what would be expected for a 10% annual probability storm event ("10-year storm") in Sedgwick County.

Lynn showed pictures of a reinforced concrete box (RCB) structure located underneath Oliver Street. The box structure has been in place since 1985, and no prior flooding complaints had been received concerning this stretch of Oliver Street. After the April 26th storm event, complaints were received regarding flooding over Oliver Street. Lynn showed a picture where fifteen inches of debris was present along the fence line near the wingwalls of the RCB. As the water subsided after the flooding, it was eventually learned that the subgrade of Oliver St. had been washed out up to 8 feet laterally, underneath the curb and gutter section and the easternmost travel lane.

Based on the county's visual survey of this area after the washout occurred, it is believed that a layer of sand, which was most likely left during the time when this portion of Oliver St. was first paved in 1985, was the layer that washed out under and adjacent to the roadway. The saturated clay soil, that was present above the sand, eventually collapsed after the supporting sand was eroded. It was noted that while the subgrade was washed out from underneath a stretch of Oliver Street about 20 feet long, the hot mix asphalt and adjacent curb and gutter remained in place without a supporting layer of soil. Lynn's hypothesis for the pavement not collapsing was that the curb and gutter section, while not directly bearing on soil, was still connected to curb and gutter that was adequately supported and was able to act as a "bridge" to help support the pavement.

The Average Daily Traffic (ADT), determined from field counts in 2008, for this stretch of street is 11,594 vehicles per day. Upon realization that the soil subgrade had been washed out, Oliver Street traffic was reduced to two lanes total, serving north- and south-bound traffic, respectively. In order to avoid further failure of the road system and to avoid further inconvenience to the travelling public, emergency repairs had to be decided

upon and performed very expeditiously. In a matter of days, a contractor was selected to perform the work and all repairs were performed for a cost of \$45,516. Repairs included 30 tons of fill, 20 tons of hot mix asphalt pavement, thirty-nine linear feet of concrete curb and gutter, and 30 cubic yards of flowable fill.

The roadway flooding, at a measured depth of 15 to 16 inches, was ultimately determined to have occurred due to a nearly completely clogged RCB opening on the east side of Oliver Street. The opening was clogged due to the accumulation of debris inside and immediately upstream of a makeshift grate, which was added by a property owner as a security measure. Sedgwick County was not informed and had no previous knowledge of the grate having been installed. Upon learning of the grate and the large amount of debris accumulation, the County advised the property owner that the grate needed to be removed, the debris cleaned out, and an alternative security solution developed. Since this time, the property owner has enlisted design services to install a security fence that would meet their needs, while also not unduly restricting or constricting flow upstream of the RCB structure.

The following individuals attended:

Banzet	Paul
Bernhardt	Scott
Borchers	Jake
Breitenbach	Stan
Carmichael	Lee
Cartwright	Jeff
Costley	Colin
Edmundson	Joe
Engstrom	Slade
Frazier	Phil
Gardner	Jeff
Gish	Duane
Greenwood	Gregg
Gunzelman	Paul
Heinz	Josh
Herlocker	Jeff
Jacobs	Mike
Jost	Penni
Kallmann	Julianne
Keltner	Bill
Lackey	Jeff
Lackey	Steve
Letkowski	Brett
Linde	Harold
Lindebak	Scott
Lindebak	Mike
Long	Wayne
McKinley	Bill
Miller	Kirk
Millican	Derick
Morton	Larry

Oswald	John
Packer	Lynn
Powell	Larry
Rhein	Jessica
Rottinghaus	Damian
Schlitt	Richard
Schwieger	Kent
Servis	Scott
Shimp	James
Slavik	Jessica
Taylor	Paul
Ullum	Lee
Weber	Jim
Williams	Deb
Winkelmann	Michelle

The meeting was adjourned at 1:00 pm by President Slade Engstrom.

Minutes were respectfully submitted by Derick Millican at 4:40 pm on Thursday, November 16, 2009.