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ASCE March Meeting Minutes

Speaker(s): Glen Scott, PE (KTA)
Mark Roberts (KTA)
Topic: KTA Emergency Repairs, Slate Creek Flooding – May 2019
Date: Wednesday, March 10, 2021
Location: Microsoft Teams (Online)

President Tyler Ummel called the meeting to order at 12:05 pm and opened the meeting with announcements.

Announcements

- a. Volunteer with Hands on Engineers in the library, tentative start date in September 2021. Contact Daniel Schrant for more info.
- b. ASCE Stem Grants – 5 applications received. The winner will be announced 3/15/21.
- c. ASCE Region 7 awards application due 4/30/21, go to the ASCE website for the application form.
- d. Past President Recognition to highlight Kyle Kerns' years of service.
- e. ASCE Officer Elections to be held in May. Contact any officer if you'd like to run for our local officer board.
- f. Next ASCE meeting will be Wednesday, April 21, 2021. Jennifer Jacka-Taylor will speak on sustainability in design
- g. Joint Dinner – TBD
- h. Steak Fry is planned for 6/17/21, but keep on the lookout for official announcements

Guest Speaker

Vice President Daniel Mealiff introduced the guest speakers, Glen Scott & Mark Roberts. Glen has 5 years of experience with the KTA as the Engineering Program Manager and 18 years of prior experience with KDOT. Mark has been with KTA for 30 years as a very experienced Engineering Technician.

Glen began the presentation introducing the history and topography of the area encompassing the KTA I-35 section that was flooded during the Spring 2019 storms. The interstate crossing of Slate Creek is roughly five miles from Wellington, KS. The dual bridges carrying I-35 SB & NB over the creek had experienced high water, at or near overtopping, seven times in the last 25 years. There is a FEMA station located upstream of the bridges, near Wellington, that was very useful for gaging the river



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flow during this time. The low point of the roadway profile is not the bridge, but rather the pair of fields directly adjacent to Slate Creek, South of the bridges. There is an existing private levee between the SE property and the creek.

During the Spring of 2019, Wellington received roughly 60" of rain, ten of which were in May alone. Slate Creek crested at 26' in 2019 and did not overtop the bridge, but did overtop the roadway at the profile low point. The KTA called upon PEC for help interpreting the river flow to see when the water levels would drop enough to be able to safely begin working on the damaged roadway and ditches.

Mark Roberts began explaining the events immediately following the closure of I-35.

- Closed NB & SB lanes of I-35 at 11:44 PM Tuesday, May 7th, 2019.
- KTA & local engineers evaluated the damage done. Large sections of driving lanes and shoulder had been washed away, concrete median barrier had been displaced, and the floodwaters had not yet receded.
- KTA diverted traffic off the turnpike, to US-81, through Wellington.
- KTA coordinated with multiple contractors, FHWA, Oklahoma DOT, & KDOT. Mobilization had begun before the water was down enough to begin the emergency repairs.
- No full-depth pavement reconstruction was necessary, only the top lift, which saved a lot of time and money.
- Stone was used for grading along the shoulders.
- SB lanes opened first, then NB opened 46 hours after they were closed on May 9th.

Glen Scott emphasized that the KTA has a lot of strict drainage criteria. They are constantly sanctioning studies to be performed in the area to improve the turnpike and have several improvements on their radar.

Solutions:

- Redesign the earthwork along I-35 and create a levee along the SB lanes.
- The existing levee in the SE quadrant is too close to the stream. Possibly move this levee about 100' away from the stream, parallel to the stream to create a wider floodway opening.
- The ultimate, long-term, solution is a new roadway profile to increase the bridge and road height by about 4' (for 100-yr storm criteria).

Questions:

- Because the bridge was not near the low point of the floodway, Glen believes that overall there was less damage done. Had the bridge been in the sump, the time and money taken to replace fix any damage done could have been significantly higher.
- Even though there was potential for more heavy rain, KTA was very driven to safely fix this area and open the interstate back up. Revenue loss, heavy traffic being backed up near Wellington, and large trucks getting stuck on county roads were all high motivators.



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Meeting Attendees

1	Jay	Anglemyer	22	Layla	McDaniel
2	Debra	Ary	23	Daniel	Mealiff
3	Scott	Bernhardt	24	Logan	Mills
4	Donald	Bosken	25	Andrew	Nguyen
5	Lee	Carmichael	26	Wesley	Nyberg
6	Colin	Costley	27	Lynn	Packer
7	Steve	Degenhardt	28	Jessica	Rhein
8	Tyler	Dehn	29	Mark	Roberts
9	Alan	Farrington	30	Macee	Roemer
10	Paul	Flynn	31	Daniel	Schrant
11	Harlan	Foraker	32	Glen	Scott
12	Nicole	Franken	33	James	Shrimp
13	Philip	Frazier	34	Brad	Shores
14	Brian	Haberly	35	Jessica	Slavik
15	Matt	Haug	36	Dan	Squires
16	Rob	Johnson	37	Anne	Stephens
17	Julianne	Kallman	38	Karl	Svaty
18	Kyle	Kerns	39	Larry	Thompson
19	Dmitry	Lomachenko	40	Tyler	Ummel
20	Amy	Lueking	41	James	Weber
21	Darryl	Lutz	42	Amy	Wegner

Meeting adjourned by President Tyler Ummel at 1:00 p.m.

Minutes respectfully submitted by Secretary Layla McDaniel.



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