Alternate Designs for Road/River Intersections
Utilizing Geomorphological Assessment and Hydraulic Modeling

Salam Murtada, P.E., P.H., CFM, MNDNR, Division of Ecological and Water Resources
Kevin Zytkovicz, MNDNR, Division of Ecological and Water Resources

Speaker Bios:

Salam Murtada is a floodplain hydrologist working in the Land Use Unit of DNR’s Division of Ecological and Water resources. He has a Masters in Civil and Environmental Engineering from West Virginia University, Morgantown. Before moving to Minnesota in 2008, he worked in North Carolina at the Ecosystem Enhancement Program as a water resource engineer. His work in floodplain culverts is collaborative with the River Ecology Unit. His other projects include GSSH modeling of Discovery Farms Minnesota sites, Floodplain modeling and review of LOMRs/CLOMRs submittals.

Kevin Zytkovicz is a Hydrographer with the River Ecology Unit of DNR’s Division of Ecological and Water Resources. He has over 30 years’ experience with the Minnesota DNR in the former Bureau of Engineering, former Lake Mapping Unit and the River Ecology Unit. For the past 10 years he has been working throughout the Whitewater River watershed in southeastern Minnesota assessing channel stability, sediment supply and road impact on natural river systems. As a member of a team of river professionals, Kevin also performs training on river assessment, monitoring, and restoration, statewide.

Presentation Synopsis:

Improper design of road/river intersections can cause significant and long term impacts to both the river system and road infrastructure. As a result, these designs can propagate cumulative impacts throughout the river system. This presentation examines the application of land form metrics on the design of infrastructure wherever a defined channel exists. By incorporating landform metrics into the design of bridges and culverts, better results can be achieved when compared to traditional designs that limit flows to over-widened on-channel openings only. The benefits of this approach have been investigated and quantified for many sites around Minnesota. In addition to reduced impact, this design approach can improve channel and floodplain efficiency and stability; biological function; lateral and longitudinal connectivity; providing a much improved flood pulse through the roadway.

The presenters recently released a ‘How to’ manual based on their original study with efforts underway to include a packet of material outlining this approach into the Minnesota Permitting and Reporting System (MPARS).

Meeting Location:

LOCATION CHANGE: Barr Engineering—Great Plains Meeting Room, 4300 MarketPointe Drive, Minneapolis, MN 55435. Parking is available in the building parking ramp with access from Johnson Ave S and Market Pointe Dr. Visitor parking is located on the first floor of the ramp. Proceed to the 2nd Floor Reception Area to be escorted to room.

Agenda:

Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM with presentation from 12:30 PM to 1:30 PM. A lunch at a cost of $15 will be available. Lunch will consist of a Leeann Chin Chinese buffet, complete with appetizers, salad, entrees, and steam white rice or natural brown rice. A variety of soda and water will also be provided for beverages. Please RSVP no later than Monday, May 22nd, with your intent to either partake in the lunch or to come for the presentation only. Please click the RSVP button in the left-hand column of page 1 or use the following Eventbrite link to RSVP: https://goo.gl/rVGl2
The presentation for April’s SAME luncheon meeting was given by Kenton Spading, USACE and the topic that he presented was on the search for Amelia Earhart. Kenton described the origin of his passion to research and join the quest to locate Amelia Earhart as curiosity that stemmed from reading a Sunday paper in 1991. Three years later, after digging in deeper, Kenton joined a research team that included engineering and computer expertise.

Amelia Earhart has been missing for 80 years, and there have been several theories that have surfaced to describe her disappearance. Nikumaroro Hypothesis was the basis of Kenton’s presentation. Kenton explained that there were 2 people on the Lockheed Electra 10E airplane, Fred Noonan (a highly experienced navigator) and Amelia Earhart.

Kenton set the stage by noting the firsts Amelia witnessed as she witnessed the Wright Brother’s first flight on an airplane when she was 6 years old, gained the right to vote when she was 23 and then set several records herself as she flew an airplane herself at 24 years old, took several notable solo flights herself starting in 1928.

Kenton described the planned flight plans for her last trip in 1937, where her plane disappeared. He gave details about the radios and transmission gear on the plane which apparently completely missed the frequencies that the nearby US coastguard ship, "Itasca" was monitoring. Describing his research team’s trips to the Nikumaroro Island, Kenton shared many of the strategies and equipment used to locate salvageable items on the island and the scientific processes they use to determine if the findings could have been part of the wreckage or from WWII aircraft and wreckage that can also be found in the area. He shared the literature search, and the tracking of clues to connect historical figures on the island and the artifacts they reported in their manuscripts.

Kenton’s research group will be returning to Nikumaroro Island this summer and will be taking a ship with a team of people who could do digging/sifting and clearing at the expedition site. He also described some of the technical unmanned survey and rover equipment they use to look for wreckage off the coast of the island. Kenton describes the coconut crabs, sharks, top reef environment and the birds that inhabit this remote island. He also showed pictures of the dense jungle and notes the highly erosive conditions that degrade the artifacts on the island. The island is calling for more discoveries. If you are interested in learning more about his research team or if you wish to contribute in some way, check out this website: http://betchartexpeditions.com/aus-nz_amelia_earhart.htm and http://tighar.org/Projects/Earhart/AEdescr1.html

The SADBOC small business conference on April 27th included many informative presentations including more discussions on the new All Small Businesses Mentor Protégé Program. Vendor booths and matchmaking continued to give many small businesses, government, and large businesses the chance to discuss upcoming opportunities and ways to better connect to do business.

Randy Czaia from the Small Business Administration retired at the end of the conference. Randy has been on the SAME-MSP Post’s Small Business Panel for the last four years. He plans to do a lot of hiking, kayaking and birding. A big thanks to Randy for his informative updates and expertise.
Save the Date—MMFF Annual Golf Event

The Minnesota Military Family Foundation (MMFF) is having their annual golf event on Tuesday, August 15, 2017 at Bunker Hills in Coon Rapids. The MMFF is a community-supported fund to help military families with financial hardships, especially when a family member is deployed. SAME MSP has supported this organization in the past and is seeking golfers to attend this event as we are sponsoring a hole. Look for details in the next newsletter or on our website.

ATTENTION: Calling All Golfers!

Mark your calendars and register now for the MSP Post’s Industry Day and 32nd Annual Golf Tournament. This joint event will take place on Thursday, July 13th, 2017, at Oak Marsh Golf Course in Oakdale, Minnesota. All proceeds from the event benefit the Post's Education and Mentoring Fund, which supports programs such as the educational grants and scholarships. Several sponsorship opportunities available - your support is appreciated! Please see attached flyer for additional details.

Online registration is now live!
Register Now for the SAME Industry Day & Golf Tournament!
Thursday, July 13, 2017 at Oak Marsh Golf Course in Oakdale, MN

Industry Day Event
8 AM to 11 AM
Registration/Welcome: 7:30 to 8:00
Session 1: 8:00 to 9:20
Break: 9:20 to 9:40
Session 2: 9:40 to 11:00

32nd Annual Golf Tournament
Shotgun Start at Noon

Supports the M-SP Post’s Education & Mentoring Fund (Scholarships)

Several Sponsorship Opportunities

Scramble Format

Prizes for 1st & 2nd Place Teams

Individual Awards for Longest Drive, Longest Putt & Closest to the Pin!

Additional Fun Activities on Every Hole and Great Prizes!

$10,000 Prize for Hole-In-One!

Individuals, twosomes, threesomes, and foursomes are welcome!

Buffet Dinner & Awards Following Golf

Contact for Additional Info:
Rachel Pichelmann at 651-724-8245 or by email at rpichelmann@sehinc.com

Registration Information and Additional Details Provided on Back Side
Register Online before the July 7 Deadline!
http://www.wpgolf.com/oakmarsh/same_fundraiser.aspx
Early registration by June 30 will qualify you for a special drawing!

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<tr>
<th>Sponsorship Opportunities</th>
<th>Registration Options</th>
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<tbody>
<tr>
<td><strong>Industry Day Sponsor - $500 Donation</strong></td>
<td><em><em>Industry Day - $40</em>/$30†</em>*</td>
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<td>Company recognized during event</td>
<td>Includes morning refreshments, technical</td>
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<td><strong>Golf Tournament Hole Sponsor</strong></td>
<td>presentations (3 PDHs), and box lunch</td>
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<td>$200 Donation for Small Business;</td>
<td><em><em>Golf Tournament - $110</em>/$90†</em>*</td>
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<td>$400 Donation for Others</td>
<td>Includes golf, ½ cart, box lunch, dinner, and one drink</td>
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<td>Company name/logo displayed at tee box, indicating sponsorship of hole.</td>
<td>ticket</td>
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<tr>
<td><strong>Golf Tournament Hole-In-One Event</strong></td>
<td><em><em>All Day - $130</em>/$110†</em>*</td>
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<td><strong>Sponsor - $750 Donation</strong></td>
<td>Includes Industry Day &amp; Golf Tournament</td>
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<td>Company name/logo displayed at tee box, indicating sponsorship of one of the hole-in-one $10,000 contests</td>
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<td>For all sponsorship options, your company will be listed as one of the tournament sponsors and will receive special acknowledgement at the awards presentation.</td>
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<td><strong>Sign up to sponsor this event using the registration link above.</strong></td>
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*Price listed applies to SAME sustaining members and employees of private firms.
†Price applies to employees of public agencies, SAME young members, and fully retired SAME members.

SAME Student Members contact Rachel Pichelmann (651-724-8245) if you are interested in participating.

Door prize donations are appreciated!

Oak Marsh Golf Course
526 Inwood Avenue N.
Oakdale, MN 55128

Check Out the M-SP Post of SAME at same-msp.org