RESEARCH ADVISORY COMMITTEE MEETING MINUTES

The Research Advisory Committee (RAC) met in the Geology Conference Room, in the Planning Building, on Tuesday, January 18, 2016. The meeting commenced at 9:00 a.m. The following members were present, constituting a quorum.

Mark Eisenhart, P.E., State Field Operations Engineer
Peter Hallsten, P.E., District 5 Maintenance Engineer
Greg Milburn, P.E., State Materials Engineer
Mark Gillett, P.E., District 4 Engineer
Matt Carlson, P.E., State Highway Safety Engineer
Kevin Lebeda, Right of Way
Jim Coffin, P.G., Chief Engineering Geologist

Also present at and participating during the meeting were:

Tim McDowell, P.E., State Programming Engineer
Jeff Purdy, FHWA, Supervisor, Transportation Planner
Kam Ng, University of Wyoming, Assistant Professor
Brian Goodrich, P.E., BridgeTech
Jay Puckett, P.E., BridgeTech
Paul Cortez, P.E., WYDOT Bridge
Keith Fulton, P.E., WYDOT Bridge
Enid White, WYDOT, Research Center Manager

Opening remarks and data issues:
Discussion was held on the need for Principle Investigators and authors of research reports to obtain an ORCID number, which is a unique research identifier and method of linking research activities and outputs to these identifiers, and the need for research reports to have digital object identifiers attached to all reports. The Research Center, the National Transportation Library, and the U.S. DOT require ORCID numbers and digital object identifiers. Discuss was held on the new Metadata Schemas, the new data management plans, what data was, what data the Research Center would be collecting, and the possibilities for data archiving. Finally, there was discussion on the new U.S. DOT Public Access Plan, why SP&R funded programs are not required to follow the plan, and what management by the U.S. DOT for research projects means.

Budget:
At this time, the Research Center does not know what funding will be available for the remainder of FY2016. The budget office has not received the FY2016 apportionment yet. Ms. White went through what funding the Research Center had available as a carryover from FY2015 and the small amount apportioned in FY2016. Mr. McDowell discussed the new SHRPII project, which is a continuation of the safety project, which was completed in December of 2015. He informed the RAC that the project had been approved and would be funded from the FY2016 funds.

A brief break was held to set up the presentations.

Project Update:

Assessment and Evaluation of I-80 Truck Loads and Their Load Effects.
Jay Puckett, Brian Goodrich, Keith Fulton and Paul Cortez.

Mr. Fulton introduced the project and Principle Investigators and the need for the project. Mr. Puckett provided a review of the project and informed the RAC that he had retired from the University of Wyoming, but that he remains at BridgeTech. Dr. Michael Barker has been brought in to assist with statistical analysis. Mr. Puckett discussed the issues with I-80 in respect to road closures and the types of trucks that travel I-80; the long haul truck issues; the fact that the truck drivers travel in teams; and that when there are road closures the trucks are stacked side by side, end to end for miles. In fact, there can be 20 miles of trucks in a line at one time. Mr. Puckett discussed the tasks for the projects and how this ties into the BRASS development in the bridge department. He further discussed the partnership with Modjeski and Masters for this project. The data that is being reviewed is bridge data, truck data, and the wind motion data. He discussed the data that was gathered, the data that is being used, and where they are going with this information.

Questions from the RAC: Mr. McDowell asked how much of the project had been completed. Mr. Puckett mentioned that they are okay on the budget but behind on the time. He feels that they may need an extension on this project.

Proposal:

Development of Load and Resistance Factor Design Procedures for Driven Piles on Soft rocks in Wyoming.
Kam Ng, Jim Coffin.

Mr. Ng provided background information on the current designs and current practices regarding piles on soft rock. He spoke about the AASHTO specification; about differentiating soft from hard rock; how WYDOT is differentiating the types of rock; the pile driving criteria and tests being performed; about design challenges; what is available and where the gaps are; about construction challenges, the lack of information, and the way to determine pile resistance; about uncertainty in pile performance and how this could lead to higher construction costs; the goals; each task; and the budget and time needed to complete the project. Mr. Ng mentioned that he would need to collect current and historical data on piles to conduct this project. He will also conduct some literature review and will work with the geology department at WYDOT.

Funding request: $160,372

Time: December 2018

Questions: Discussion was held on how WYDOT currently differentiates between hard, the soft rock; AASHTO guidelines; and how this project will affect construction management.

Introduced the new U.W. facility member, Shawn Griffiths. Mr. Griffiths specializes in soil dynamics and earthquakes. He asked the RAC what some of their needs are and how he could help. Mr. Coffin asked about seismic site classes and if Shawn could help the geology department out. Shawn talked about seismic site verifications and what he could bring to the table.

Break

Discussion on Proposals and vote.

Development of Load and Resistance Factor Design Procedures for Driven Piles on Soft rocks in Wyoming. Kam Ng, Jim Coffin.

Mark Eisenhart moved and Pete Hallsten seconded to bring the proposal forward for a funding determination. Some discussion was held on contracts, LRFD design, and verification of design load in the field. The motion was approved unanimously.

The RAC meeting was adjourned.

The next meeting will be held on July 20, 2016, in Cheyenne.