FY 20 MDOT SHA Research Needs

Response to Administrative & Technical Questions

Updated 08/06/19

Administrative Questions:

Question A1: *Is there a budget limit for proposals?*
Answer: No. However, cost will be factor in the proposal selection process. Most projects selected for funding are $75K - $150K. If a research need requires a long study period and/or a large scope-of-work, it may be justifiable to include a budget above this range.

Question A2: *Will SHA select only one proposal for each research topic or multiple?*
Answer: In general SHA will only select one proposal for each research topic. However, in cases where it is deemed to be advantageous to SHA to pursue more than one proposed research plan, multiple selections may occur. That will not be determined until the proposal review phase and will also depend on funding availability.

Question A3: *Can a researcher submit multiple proposals for one research topic?*
Answer: No. Researchers may submit a proposal for more than one research topic but should not submit multiple proposals for the same topic.

Question A4: *Can proposals include a Co-PI?*
Answer: Yes. While MDOT SHA only accepts proposal with one principal investigator, a Co-PI is acceptable if 1.) their percentage of time is significantly less than the PI; 2.) their contribution to the project is meaningful and clear in the proposal; and 3.) the PI agrees to maintain project oversight and accepts responsibility for all work being delivered.

Question A5: *How long is the study period for SHA research proposals?*
Answer: Unless otherwise specified in the RFP, the study period for the research is flexible and should be based on the scope-of-work proposed. However, a 12-18 month time frame is generally desirable.

Question A6: *Are there restrictions for font size and page margins?*
Answer: No, there is no restriction on font size or page margins. MDOT SHA accepts proposals that communicate a straightforward and professional image.

Question A7: *Does the proposal need to be routed through the university’s research administration office?*
Answer: When responding to an RFP, a proposal is not required to be routed through the research administration office. After being selected, the final proposal would have to
be routed through the research administration office. PIs should always check with their individual universities for their specific policy.

QuestionA8:  
Is an appendix allowed and will it count towards the page count?  
Answer:  
Yes and yes, an appendix is allowed and it will count towards the ten page limit.

QuestionA9:  
Would a full-time faculty who is not on a tenure-track qualify as a PI?  
Answer:  
Yes, a research professor not on tenure-track qualifies, as long as he/she has the right expertise.

QuestionA10:  
What is the appropriate indirect cost rate?  
Answer:  
The indirect cost rate is determined by the agreement between MDOT SHA and state universities. For example, the indirect cost rate is 26% for the University of Maryland, College Park, and Morgan State University. Please check with your university’s office of sponsored research if additional information is needed.

QuestionA11:  
Is there a limit about labor expense in the budget?  
Answer:  
Please see QuestionA1 for answer on the total budget. MDOT SHA does not have a limit on labor expense.

QuestionA12:  
When budgeting to a subcontractor, can we include salary in it? Is there a limit on percentage?  
Answer:  
Yes, you can include a subcontractor. “Any subcontractor or consultant will be procured to provide any work required” needs to be identified in the proposal. MDOT SHA does have a limit on the percentage of subcontracting costs. “The University shall itself perform work at a value (measured by cost incurred) not less than fifty percent (50%) of the amount” in the total budget. You can find more information on Page 7 of the Guidelines for Proposals.

Technical Questions:

General Question#1  
For research that requires field work, if a research team has candidate sites in mind, is there a viable mechanism to confirm suitability and/or access to these sites for our research plan with an MDOT representative?  
Answer:  
MDOT SHA recommends including the suggested candidate sites in the proposal and adding a statement that the locations are subject to change pending input and approval from MDOT SHA. Once proposals are selected there will be an opportunity to discuss and finalize the scope-of-work (including details like field sites) with technical staff.
RFP#02: Implementing Machine Learning with Highway Datasets

**QuestionT21:** Since the RFP will be modification of the existing Neural Network model that predicts drilling data and drilling schedules by the Office of Materials Technology (OMT), is it possible to have access to this model?

**Answer:** Yes. The selected research team will have access to the model and need to work closely with OMT in improving the existing model.

**QuestionT22:** Please elaborate more on the challenges presently encountered by SHA in QA/QC sample location identification, construction history and geologic risks. A better understanding of these challenges will facilitate the development of excellent machine learning models.

**Answer:** The Geologic Hazards, Construction History, and Pavement Friction & IRI Data are all discrete datasets where we know the condition or history at discrete points. We would be looking to develop machine learning algorithms to map out these discrete datasets into a continuous model in order to locate hot spots, prioritize monitoring, and plan inspections after a big storm event.