

November 21, 2022

## **NEx Request for Proposals Notice**

NEx encourages to submit proposals focused on the topic described below:

**Project ID: SG23.03.**

**Project Title: Develop Guideline for FRP Dowels.**

### **Background**

Dowels are used to provide load transfer between individual slabs and improve performance. Dowels help increase the strength of a concrete surface and reduce joint faulting and corner cracking. Several studies demonstrated that the dowel bars in concrete pavements ensure longer performance life provided that the dowel has the ability to resist corrosion. Since FRP dowel bars are noncorrosive, they appear to be a promising replacement for conventional metal bars. FRP dowels are lightweight, nonmagnetic, noncorrosive, and have positive load transfer efficiency. Despite these benefits, FRP dowels are not widely used due to a lack of design guidelines.

### **Proposal Request**

NEx invites proposals for developing a guideline for the use of FRP dowels in the construction industry. The document should be in line with the steel dowel guidelines given in ACI 330 and ACI 325 documents. The document should provide as a minimum an overview of FRP dowel sizes, material specifications, design guidelines, and its application in construction.

### **NEx Mission Statement**

Collaborate globally to expand and accelerate the use of nonmetallics in the built environment to drive innovation, research, education, awareness, adoption, and deployment.

NEx is committed to achieving its mission through Research and Development, Standards and Guidelines, Professional Development, and Advocacy and Awareness.

### **Funding Policy**

NEx will impose a limit of 15% on indirect costs (overhead) by research organizations for any research it funds. The organization must waive the remainder of the indirect costs.

### **Award Amount**

NEx does not impose any limit on the overall funding request; however, the anticipated budget for this project is to be around \$30,000. Proposals with higher budget estimates will be accepted with information on budget spending relevant to the value added to the project scope. Co-funding and co-sponsoring proposals with other organizations are welcomed.

## **Proposal Evaluation**

NEx research proposals will be evaluated by the NEx Steering Committee. A winning proposal will be forwarded to the NEx Board of Directors with recommendations for funding.

Proposal evaluation criteria will include technical content, methodology, PI's relevant experience, potential impact/ industry adoption, cost and time, proposed deliverables, and outcome.

## **Awarded Proposals**

- The awarded proposal is expected to commence within the first quarter of 2023.
- NEx will enter into a contract with the researching entity. As part of the contract, it is mandated that the overhead or indirect return be set at no more than 15% of the direct cost of the research funding requested from NEx. Any overhead over the maximum allowed 15% that is waived by the researching entity shall be considered as cost sharing and shall be indicated on the budget table as waived overhead, separate from other co-funding. Non-compliant proposals in this regard shall be returned without review.
- The schedule of payments contingent upon milestone deliverables will be contained in the contract and will include, at a minimum, a final report deliverable to NEx. Progress reports, if required, will be identified in the final contract.
- If principal investigators (PI) from two organizations are collaborating on the research, the award must be to a single organization, which will then subcontract with the second organization.
- NEx will only consider funding research that involves the use of proprietary products if the goal of the research is to advance knowledge in a particular area of study and not solely on a proprietary product.
- In case of any co-funding arrangement with other organization(s), commitment letter(s) from co-funding organization(s) is required before funds are dispersed from NEx.
- The results of NEx-funded research will be owned by NEx, and possibly by other co-funding organization(s). PI should obtain approval from NEx before publishing any results.

## **Where and How to Submit Proposals**

Submitted proposals will be evaluated by the NEx Steering Committee and the NEx Staff. Anyone who evaluates a proposal is required to agree and abide by NEx policies on confidentiality and conflict of interest.

Please email the proposal and supporting information to [info@nonmetallic.org](mailto:info@nonmetallic.org), by end of the day, January 6, 2023. The subject line and the file name shall include project ID (see top of page 1) and the name of the proposing organization (For example: "SG23.xx University of xyz").

If you have any questions regarding the proposal requirements or process, please contact NEx Technical Director, Aparna Deshmukh ([aparna.deshmukh@nonmetallic.org](mailto:aparna.deshmukh@nonmetallic.org)).

## **Required Proposal Content**

Proposals submitted to the NEx shall be provided in one unprotected pdf file and shall contain:

- Contact information of the Principal Investigator (PI), co-PI (*if applicable*) and administrative persons that may submit on behalf of the PI;
- Proposal Title;
- Executive summary to be used for promotional purposes:
  - Total project budget amount including up to 15% overhead, if any;
  - Value of any co-funding, identified as monetary or in-kind (monetary value of donated materials, consulting or testing services);
  - Amount of waived institution overhead;
  - Description of objectives of the proposal (300 words or less);
  - Description of significance/impact of the project (300 words or less).

Main body of the proposal (*maximum of 5 pages in 12-point font*) must include:

- Objectives;
- Significance/Impact;
- Project description to include enough detail to understand how it will be performed;
- Matrix of tasks and schedule of completion, including progress and final reports;
- List of anticipated products, such as new material specifications, new documents, published papers, presentations, or conference proceedings;
- Table of funding that includes all support such as:
  - Total budget;
  - Any co-funding from organizations other than NEx;
  - Net value of waived institution overhead or planned co-funding (if not in place yet).

Supporting information should include:

- References cited;
- Qualifications of the investigator(s) and/or institution(s). Biographical sketches are limited to two pages per investigator.