

August 15, 2024

NEx Request for Proposals Notice

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

NEx RFP Id: SG25.10

Proposal Title: Integration of FRP Reinforcement into the 2028 TMS 402/602 Building Code

Background

The TMS 402/602 Building Code Requirements and Specification for Masonry Structures is a critical document in the construction industry, encompassing two standards and their commentaries: Building Code Requirements for Masonry Structures (TMS 402) and Specification for Masonry Structures (TMS 602). TMS 402 focuses on the design and construction of masonry structures, while TMS 602 outlines the minimum construction requirements. The inclusion of fiber-reinforced polymer (FRP) bars as reinforcement in masonry structures represents a significant advancement in material technology and design practice. However, the current Appendix D does not comprehensively address the design requirements for FRP bars.

In preparation for the next version of the TMS 402/602 Building Code, set to be published in 2028, there is a need to develop a new, comprehensive appendix that covers all necessary design requirements for incorporating GFRP bars compliant with ASTM D7957 as reinforcement in masonry structures. This new appendix will replace the current Appendix D and will provide updated, thorough guidelines to ensure the safe and effective use of FRP reinforcement.

Proposal Request

We are seeking proposals to develop a comprehensive appendix for the 2028 edition of the TMS 402/602 Building Code, detailing the design requirements for GFRP bars compliant with ASTM D7957 as reinforcement in masonry structures. The objectives of this project include:

1. Identify the needs of TMS402/602 regarding design and specification requirements for GFRP reinforcement
2. Develop a new appendix that covers all necessary design requirements for GFRP reinforcement in masonry structures, replacing the current Appendix D.
3. Ensuring the appendix is consistent with the existing structure and standards of the TMS 402/602 Building Code.
4. Collaborating with industry experts and stakeholders to gather input and validate the proposed guidelines.

Preference will be given to proposals from TMS 402 members or individuals with experience working with the TMS 402 code. The successful proposal should demonstrate a thorough understanding of the current TMS 402/602 standards and the unique considerations involved in integrating FRP reinforcement into masonry design.

This project is critical to advancing the use of innovative materials in masonry construction and ensuring the TMS 402/602 Building Code remains at the forefront of industry standards. NEx envisions that the project progress and outcomes be communicated with the ACI 440 committee over the course of the

project.

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 project organizations for any project 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 \$50,000 to \$85,000. Proposals with higher budget estimate 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 project 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, budget and time, proposed deliverables, and outcome. Typically, NEx funded project duration ranges from 6 to 24 months.

Awarded Proposals

The awarded proposal is expected to commence within the first quarter of 2025

- NEx will enter into a contract with the awarded 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 project funding requested from NEx. Any overhead over the maximum allowed 15% that is waived by the awarded 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. Quarterly progress reports will be identified in the final contract.
- If principal investigators (PI) from two organizations are collaborating on the project, the award must be to a single organization, which will then subcontract with the second organization.
- NEx will only consider funding projects that involves the use of proprietary products if the goal of the project 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 project will be owned by NEX, and possibly by other co-founding organization(s). PI should notify NEX before publishing any results.

Where and How to Submit Proposals

Submitted proposals will be evaluated by the NEX Steering Committee and subject matter experts. 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, by end of the day, **October 7, 2024**. The email subject line and file name shall include project ID (see top of page 1) and the name of the proposing organization (For example: "RD24.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).

Proposals submitted to NEX shall be provided in **one unprotected PDF** using [NEX provided template](#).