

LIFE Form Review

CICI - Intg of Composites into Infrastructure (Virtual Meeting) - December 2nd, 2020

Project Updates: Progress Ratings

Title	GP	OnC	NC	OffC	A
(1) Application of Geofoam in Thermal Encapsulation of Foundations	0	5	0	0	2
(2) Design and Testing of IFI Geosynthetic Products	0	4	0	0	3
(3) Performance of Pavement Sections with Wicking Geosynthetics	2	2	0	0	0
(4) Mitigating Sulfate Heaving Using Novel Soil Stabilizers	1	3	0	0	0
(5) Timber Pile Rehab with FRP Composite Wraps	3	2	0	0	0
(6) Development of Sheet Pile Wall Test Procedure	1	3	0	0	0
(7) Responses of FRP Utility Poles Under Wildfires	1	2	1	0	0
(8) Thermo-Mechanical Responses of FRP Composite Jacketing for ...	0	3	0	0	1
(9) Physio-Mechanical Characterization of Composites for Infras ...	2	2	0	0	0
(10) Determining the Durability of Composites for Infrastructur ...	3	1	0	0	0
(11) Implementation of Composites Solutions Through Experimenta ...	2	2	0	0	0
(12) Propelling the use of FRP Composites with Meaningful Codes ...	2	2	0	0	0
(13) Prestressed MF-FRP Repair of Deteriorated Prestressed Conc ...	1	2	0	0	0
(14) Repair of Precast Concrete Dapped End Beams	2	2	0	0	0
(15) Repair of Deteriorated Timber Piles	4	0	0	0	0
(16) Creep of Precast Concrete Sandwich Panels with CFRP Wythe ...	1	2	1	0	0

LIFE Form Review

CICI - Intg of Composites into Infrastructure (Virtual Meeting) - December 2nd, 2020

Project: (1) Application of Geofom in Thermal Encapsulation of Foundations

Phase: Project Update

Project PI: Surya Congress (TAMU)

Progress Ratings

Great Progress - 0

On Course - 5

Needs Change - 0

Off Course - 0

Abstain - 2

Summary of Responses to IAB Comments

On Course

- interesting concept. Need to consider construction practices

Response 1: Thanks for the suggestion. We are currently looking at the efficiency of geofom in thermal encapsulation of concrete slabs and its influence on the heat transfer to the soil and vice versa in a lab-scale study. Based on this study, we will be able to address many questions like the scalability, soil type, and thickness of the geofom required before we move to a larger scale field study where we will consider the detailed construction practices. -Puppala and Congress

- How are you selecting the thickness of the Geofom to account for scaling affects in the test box?

Response 1: Great question, which also aligns with one of the objectives of the current study i.e. identifying an appropriate geofom thickness. We will approximately scale down the thickness of the geofom to match the requirements of the small scale concrete slab that is being considered in the study. From that starting thickness, we will conduct performance monitoring for geofom with increasing thickness. We will also identify the optimum geofom thickness needed for our field study as well. -Puppala and Congress

- Interesting study. Results useful for home builders/home owners. Study not applicable for highway infrastructure.

Response 1: We agree. This study is intended towards assisting homeowners. Thanks! -Puppala and Congress

LIFE Form Review

CICI - Intg of Composites into Infrastructure (Virtual Meeting) - December 2nd, 2020

Project: (2) Design and Testing of IFI Geosynthetic Products

Phase: Project Update

Project PI: Anand Puppala, Ashraf Khan (TAMU)

Progress Ratings
Great Progress - 0
On Course - 4
Needs Change - 0
Off Course - 0
Abstain - 3

Summary of Responses to IAB Comments

SushantAgarwal's Response: nice progress

On Course

- This is a very useful study. The recommendations stemming from the study will be of interest to state DOTs which utilize geosynthetics for soil reinforcement. Looking forward to the final report and design recommendations.

Response 1: We want to thank you for your comments and appreciation. The results obtained from our large-scale laboratory testing will be used to develop design charts. The design-charts for different geo-composites will help the DOT engineers select the optimum thickness of the base layer with the appropriate type of geosynthetics. This study will also address the bearing capacity improvement factors for other types of foundation systems constructed over weak subgrade soil. -Md Khan

Abstain

- not enough knowledge in this area

Response 1: We appreciate your time. We will try to make a detailed report with all the testing details and reinforcement mechanism for these geocomposite materials. Hopefully, our final report will help you understand the importance of geocomposite materials (Fabgrid, Geocell) in the field of Geotechnical Engineering. -Md Khan

LIFE Form Review

CICI - Intg of Composites into Infrastructure (Virtual Meeting) - December 2nd, 2020

Project: (3) Performance of Pavement Sections with Wicking Geosynthetics

Phase: Project Update

Project PI: Anand Puppala, Nripojyoti Biswas (TAMU)

Progress Ratings

Great Progress - 2

On Course - 2

Needs Change - 0

Off Course - 0

Abstain - 0

Summary of Responses to IAB Comments

Great Progress

- Another interesting study using geosynthetics. The field tests are providing excellent confirmation of the benefits of the wicking geosynthetics. Design recommendations will be needed for implementation of this system.

Response 1: Appreciate your comments. We would work on design recommendations after the completion of the long-term monitoring period. -Nripojyoti Biswas

On Course

- good organization and logical

Response 1: Appreciate your comments. -Nripojyoti Biswas

LIFE Form Review

CICI - Intg of Composites into Infrastructure (Virtual Meeting) - December 2nd, 2020

Project: (4) Mitigating Sulfate Heaving Using Novel Soil Stabilizers

Phase: Project Update

Project PI: Sayantan Chakraborty (TAMU)

Progress Ratings

Great Progress - 1

On Course - 3

Needs Change - 0

Off Course - 0

Abstain - 0

Summary of Responses to IAB Comments

Great Progress

- it will be interesting to see the sustainability assessment on this subject

Response 1: Thank you for the comment. The results from engineering tests, microstructural analyses, and sustainability assessment studies will provide valuable information on the suitability of using crystalline silica admixture as a co-additive with traditional Ca-based stabilizer. -Anand and Sayantan

On Course

- Interesting results from a useful study. Would be interested in the final results and a report with recommendations.

Response 1: Thank you for the comment. The final report will include the results from engineering tests, microstructural analyses and sustainability assessment studies along with the recommendations. -Anand and Sayantan