

TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM

Triumph Gulf Coast, Inc. (“Triumph Gulf Coast”) has created a pre-application process to provide initial consideration of potential ideas for projects or programs that may seek an award of funding. Applicants are required to participate in the pre-application process. Notwithstanding the response from Triumph Gulf Coast on the pre-application form, an Applicant may still elect to submit an Application.

APPLICANT INFORMATION: Name of Individual/Entity/Organization: Florida A&M University
CONSTRUCTION & INFRASTRUCTURE TECHNOLOGY INNOVATION CENTER OF EXCELLENCE (CITIC)

Brief Description of Background of Individual/Entity/Organization: Florida A&M University is the premiere school among historically black colleges and universities. FAMU remains the only HBCU in the eleven-member State University System of Florida. Originally designed to meet the needs of the underrepresented and the underprivileged, FAMU continues to serve the citizens of Florida and the world through its provision of pre-eminent educational programs. These programs are the building blocks of a legacy for the hallmark of Florida A&M University: “Excellence with Caring.” FAMU, Florida’s Opportunity University, is committed to meeting the challenges and need of future generations.

Contact Information:

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Names of co-applicants, partners or other entities, organizations that will have a role in the proposed project or program: Summit Reliance Group

REQUIRED EXECUTIVE SUMMARY:

In a maximum of three (3) pages, please describe the proposed project or program, including (i) the amount of funds being sought from Triumph Gulf Coast; (ii) the amount and identity of other sources of funds for the proposed project or program; (iii) the location of the project or program; (iv) summary description of the proposed program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of the disproportionately affected counties, and (v) a summary timeline for the proposed project or program.

IMPORTANT NOTICE

This pre-application process will **not** result in an award of funding by Triumph Gulf Coast. Rather, this process is designed to facilitate submission of ideas for potential projects or programs before the Applicant expends time and/or resources to complete a full Application. All Applicants for funding are required to complete an Application, which will be scored, and then considered for award in the discretion of Triumph Gulf Coast Board.

Research Proposal Entitled:

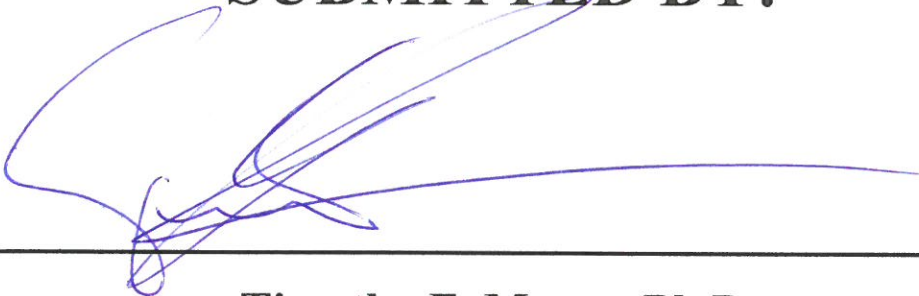
FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

CONSTRUCTION & INFRASTRUCTURE TECHNOLOGY INNOVATION CENTER OF EXCELLENCE ("CITIC")

Principal Investigator:

Timothy E. Moore, PhD

SUBMITTED BY:



Timothy E. Moore, Ph.D.
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FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY ("FAMU") - CONSTRUCTION & INFRASTRUCTURE TECHNOLOGY INNOVATION CENTER OF EXCELLENCE ("CITIC")

- (i) The amount of funds being sought from Triumph Gulf Coast - \$35,000,000.00
- (ii) The amount and identity of other sources of funds for the proposed project or program – Florida A&M University will leverage its corporate and philanthropic network for private investment as well as utilize R&D resources and in-kind contributions to secure up to 40% of the project funding or approximately \$10M within 6-12 months of the project launch.
- (iii) The location of the project or program – CITIC will be physically based on approximately 12 acres owned by FAMU in Innovation Park, North Florida's Premier Research Park and home to more than thirty cutting-edge research and manufacturing organizations. Research and technology breakthroughs pervade Innovation Park, from the development of Science, Technology, Engineering, and Math educational software to a Transmission Electron Microscope (TEM) that achieves the highest scanning transmission resolution in the world among commercial TEMs. During the initial phase of the CITIC project, the eight Northwest Florida counties disproportionately affected by the oil spill are the program beneficiaries. Those counties include Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, Franklin and Wakulla.
- (iv) Summary description of the proposed program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of the disproportionately affected counties

SUMMARY DESCRIPTION

FAMU CITIC proposal is an innovative multidisciplinary partnership between FAMU's core academic schools and Summit Reliance Group, Inc., ("Summit") a U.S. New York and New Jersey disruptive innovation technology platform company that is focused on global sustainable infrastructure development and advancement the condition of the humankind by improving fair access to safe and affordable housing, medical, emergency, educational and other public facilities, roads, bridges, improved transportation infrastructure, and water.

The objective of this master alignment is to leverage the research and academic resources of FAMU's (a public Historically Black College and University ("HBCU") professional programs across a plethora of Summit's state-of-the-art infrastructure development Solutions to positively impact the eight Northwest Florida counties disproportionately affected by the oil spill.

It has been recognized that any research activity within a university setting is a significant economic engine, impacting commercial venture development and providing hands on and academic training for the next generation of local and global leaders. The proactive alignment with Summit Reliance Group, Inc. will serve as a powerful multidisciplinary public private research and development partnership platform for the state of Florida to bring critical innovation Solutions that impact the State's and local economy in a multitude of highly appropriate ways:

Advanced Paradigm-Changing Solutions Promotion and Excellence Certification on a Global Scale

- ✓ establish FAMU and by extension Florida as a center of excellence for advance infrastructure development solutions designed to meet global environmental challenges, Florida being a natural fit for such an endeavor, given its unique geographic position and top educational, academic and workforce resources to develop, test and deploy such Solutions worldwide;
- ✓ provide hurricane resistant ultra-rapid monolithic concrete construction and permanent disaster recovery construction Solutions for all manner of local and global infrastructure development needs (Summit StructCrete™);
- ✓ commercialize additional concrete advanced materials and research technologies with a variety of highly appropriate local and international applications, such as:
 - high blast and ballistic resistant concrete Solutions for military and civil security needs (Summit Armor/ShieldCrete™)
 - bringing state-of-the-art permanent beach erosion prevention Solutions to Florida prized shoreline and coasts around the world (Summit PermaDune™)

Statewide Economic and Social Development

- ✓ promote local job creation and fuel economic growth through:
 - establishing local advanced all-steel mould manufacturing capability that will supply local infrastructure development and global needs;
 - training local contractors to implement the associated technologies and developing best practices and training programs for lowest skill entry level workers to bring this core skills development competency to distressed communities at home and abroad;
 - using Florida port and related transportation infrastructure;
 - promoting inbound foreign direct investment into Florida from India and other target global markets that Summit is active in; and,
 - fostering international academic and commercial exchanges and programs in the field of global infrastructure improvement, including affordable housing, green construction and rural and urban development.

- ✓ further FAMU's prominence in promoting local and international sustainable community development agenda:
 - providing cost competitive green affordable housing, medical, emergency, educational and other public facilities construction that have an ultra-short development cycle and long useful life with minimum to no maintenance;
 - building hurricane and tornado resistant housing and other facilities for climate challenged conditions;
 - implementing cold storage and energy efficient facilities for agricultural use;
 - integrating distributed energy and off grid power as part of its Solutions suite;
 - bringing in cutting edge waste-to-energy technologies for environmental remediation and reclamation and repurposed fuel stock access;
 - delivering food security and safe and clean and water access as part of the economic development paradigm via global logistics Solutions; and,
 - improving overall global supply chain management training and certification, as well as implementation of advanced Just-In-Time (JIT) logistics Solutions in select global markets as part of FAMU's research and consulting mandate.

The winter 2004 Economic Development America newsletter focused on university-based partnerships in Economic Development. This issue described the areas for universities to focus on in terms of economic development. According to David Sampson, three of these areas include: building strong research partnerships with industries; promoting technology transfer; and creating entrepreneurial ecosystems, which will be the focus of CITIC.

The core benefit of establishing CITIC at FAMU is to create a new Center of Excellence in Construction and Infrastructure development which will demonstrate that platform private sector companies in core public benefit areas can provide immense turnkey resources, opportunities and potential cash flow funding to interested schools that focus on applied solutions and giving back to the communities at home and worldwide. In essence, **CITIC will act as an incubator of new Solutions relevant to the FAMU community as a research and development ecosystem, Florida residents and the nation and the world at large.**

Benefits of the CITIC Partnership

FAMU's partnership with Summit is the foundation to launch CITIC as a highly collaborative initiative. The vital community outreach platforms that are already in existence within FAMU and its technology commercialization efforts and venture creation in partnership with Summit within CITIC will be merged to develop a powerful new model for economic growth. CITIC will be positioned as a portal to FAMU resources and Summit state-of-the art community infrastructure development Solutions as a conduit for economic development, technical assistance and applied research. CITIC will formalize the resources available on an Internet platform and will conduct further outreach across the State in order to, among other initiatives:

- ✓ establish a Center of Excellence and resident core domestic and international competency in global advances infrastructure development Solutions, from construction to supply chain and resource management to energy access, all core verticals most relevant to the success, sustainability and security in the global economy;

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- ✓ increase the State's man-made and natural disaster preparedness;
- ✓ defend and enhance the treasured shoreline ecosystem from destructive tidal surges;
- ✓ provide top of the line green cost effective fast and reliable affordable housing Solutions;
- ✓ bring a substantial number of direct and induced jobs to the State; and
- ✓ augment FAMU's profile as a research university with a major local and international development mandate

Summit, therefore, is ideally suited to be FAMU's plug-and-play partner in the context of establishing CITIC, since it is an advanced multifaceted infrastructure technology platform, allowing for seeding multiple interdisciplinary research ventures that will integrate both applied research and real time workforce training. As pointed out in the 2004 report on the impact of technology clusters within Universities on local and regional economic development (a Carnegie Mellon University report prepared for U.S. Economic Development Administration (EDA)¹:

The focus of economic development should be on supporting innovation, increasing prosperity for American businesses and ensuring American workers have the skills to remain the most productive workforce in the world. Innovation will drive the growth of American industry by fostering new ideas, technologies and processes that lead to better jobs and higher wages—and, as a result, a higher standard of living. America's capacity to innovate will serve as its most critical element in sustaining economic growth.

Additionally, the plans for CITIC will draw on the Council on Competitiveness's perspective that innovation is the only sustainable source of regional prosperity, and that a connection between community and economic development must be realized. FAMU is ideally suited to establish CITIC with these redevelopment goals in mind, as it possesses unique academic and research resources.

- (v) **A SUMMARY TIMELINE for the proposed project or program.** The timeline below outlines the proposed project outcomes based on CITIC's unique, program driven Technology/Solutions & Contemplated Applications.

Technology/Solutions Timeline	Contemplated Applications
Master Plans Timeline (30-60 days)	In collaboration with relevant 8-county entities to perform a detailed review of the county's infrastructure needs and carry out economic cost benefits analysis related to grant use for the same to maximize local and regional economic impact.
StructCrete™ Timeline (60 days-Ongoing)	Deploy StructCrete™ - the fastest concrete construction technology in the world today – in commercial and residential, as well as certain infrastructure applications and train local workforce in these advanced and climate-appropriate construction methods – a demo project done by labor-in-training will provide significant life cycle cost savings and will serve as a proof of training and construction technology innovation.
PermaDune™ Timeline (120 days-Ongoing)	FAMU and Summit will collaborate with 8-county entities to pilot PermaDune™ and train local contracting community in this advanced beach erosion.
Workforce Development Timeline (60 days-Ongoing)	In collaboration with relevant 8-county entities to devise and implement a master workforce vocational training and skills development program relating to precast construction, applied finishes and other specialty trades, such as concrete waterproofing and maintenance/retrofits of concrete buildings, including renewable energy unit deployment and installation.
Advanced Waterproofing Trades Certification Timeline (60 days-Ongoing)	Certify and train displaced workers in 8-county entities in advanced waterproofing and solar reflective coating and related application techniques using industry leading U.S. made products (note: Summit Affiliates are involved in promoting GAF products in certain territories overseas as leading U.S. made waterproofing solutions for hot and humid tropical and subtropical climates).

¹ Universities and the Development of Industry Clusters, a 2004 Carnegie Mellon University Center for Economic Development study for U.S. EDA.