



Triumph Gulf Coast, Inc.
Pre-Application
STEM in Education

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Applicant Information

Franklin County School District

Franklin County School District (FCSD) is a public agency governed by a locally elected School Board and Superintendent of Schools.

Contact Information

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i.Amount Requested

Triumph funding requested in this pre application is for the start-up costs of two STEM labs. Franklin County PK-12 school (FCS) plans to renovate an existing building while Apalachicola Bay Charter School (ABC) plans to construct a new lab. The funding requested includes costs for construction and or renovation of existing facilities, necessary technology and other equipment, Project Lead the Way (PLTW) instructional materials, and teacher training. The Apalachicola Bay Charter School (ABC) will make a \$200,000 cash investment toward the start-up cost of the (ABC) lab over the period of construction. The amount requested for Triumph funding is **\$720,000** over the 2 ½ year start-up period.

ii. Other funding Sources

District funding sources, including FEFP and other local sources, will support the operation of the programs for 25 years. A teacher for each STEM facility will be hired. Incremental teacher salaries and other lab operating expenses approximating \$2,108,970 on net present value basis (NPV) at a 4% discount rate over 25 years will be a major part of the district's matching funds for this proposal.

Amount of Funding Requested and Other Sources:

The pre application funding request for the two STEM labs and start-up cost is \$720,000. Please refer to attached Exhibit 1 which shows Preliminary Financial Projections which support this funding. The funding request and economic analysis that support this request will be refined in the full application.

iii. Implementation Sites

The programs will be located at Franklin County PK-12 School (FCS) and Apalachicola Bay Charter School (ABC) both located in Franklin County. FCS serves 73% and ABC serves 27% of the Franklin student population. The STEM programs will be implemented in grades K-8 in both schools.

iv. Program Description

FCSD proposal will focus on the expansion of STEM (Science, Technology, Engineering, and Mathematics) in grades K-8. FCSD is following the recommendations of the Northwest Florida Forward Strategic Plan. These plans include developing the regional talent infrastructure and building a pipeline of a long term workforce within our region. The implementation of STEM programs in grades K-8 will significantly strengthen our long term workforce. This new workforce will be able to analyze data, address real world problems, develop solutions through cooperative groups and present solutions in a clear and articulate process. The implementation of STEM programs in K-8 grade levels will increase student engagement, critical thinking and problem solving skills, while expanding the student's knowledge of a wide variety of career opportunities.

This foundation of STEM exploration will enable the students to select a career pathway when they enter high school. Having participated in STEM activities in a variety of career areas will enable students to understand the skills, practices, and demands required in each career area.

The STEM program to be implemented for grades K-8 will include PLTW materials. PLTW is the nation's leading provider of STEM programs. PLTW's world-class activities, project based learning, and problem-based curriculum along with high quality professional development and a supporting network of educators will help students develop workforce skills needed to succeed in our global economy.

Recent research has recommended that every effort should be made to start as soon as children enter elementary school to develop interest in STEM identities and careers, work collaboratively while engaged in problem-solving, extend reasoning skills while understanding multi-steps solutions, and create curiosity and creativity through hand-on learning. These skills and abilities will enhance student learning and better prepare students for a diversified workforce that is ever changing and requires more collaboration to solve the complex problems facing our communities and state.

Currently FCSD is moving towards one-to-one computing and has several computer labs available for classroom groups. The district through the use of Digital Classroom funds has purchased Chromebooks for student in grades K-8. Students in grades K-5 will utilize the PLTW Launch program to learn through exploration and discovery, working collaboratively on projects to solve problems. Each module starts with an engaging story that introduces the challenge and then students work together to solve the presented problem. Topics to be explored include; structure and function, light and sound, material science, stability and motion, energy, robotics, and automation. Each of these modules is aligned with the Florida State Standards.

Students in grades 6-8 will utilize the Gateway program discovering and problem solving around these topics; design and modeling, automation and robotics, app creators, computer science for innovators and makers, energy and the environment, flight and space, science for technology, magic of electron, green architecture, and medical detectives. Each of these modules require students to apply the concepts they have learned to real world, hands-on problems, and find solutions through cooperative work. The students are required to present their solutions and explain their process and conclusions.

To implement the STEM programs it will be necessary to renovate or build additional classroom space on both the FCSD PK-12 campus and the ABC campus.

A separate inventor space will be crucial as an entry point for these students to start their career pathway toward a viable position in the workforce. This additional work space will provide students with opportunities to explore career and technical training, advanced STEM coursework, as well as career and industry certifications. This will provide the majority population of disadvantaged students in Franklin a

pathway out of poverty through securing a career in high demand occupations right after high school graduation or achieving a postsecondary degree. These facilities will house the materials and equipment needed for students to productively work together, and create models for solutions to problems being presented in STEM curriculum.

The space will allow for teachers to bring their classes to the maker-space to build and test their models, make revisions, and retest their models. This space will be built/renovated to allow for storage of the materials, space for testing, recording data, development of presentations, and workspace for cooperative work. The space must include flexible seating work tables, storage for the materials, heat resistant tops, and open space to test the models as needed.

v. Timeline

The timeline for the implementation of the project is approximately 2 ½ years for site completions. The district will begin the implementation of the project as soon as funds are available from Triumph. An RFP for Architectural drawing will be released as soon as the funds are available and plans will be finalized. A teacher for each STEM lab will be hired for training and planning prior to the lab opening operations. The district will select teachers for the training at the PLTW summer institutes held in June-July 2019 or the first summer that funds are released. Material for the PLTW Launch and Gateway programs will be ordered upon the award of funds and the materials will be available to the teachers that have received the PLTW professional development. Construction/renovation will begin, and be completed within 24 months. While construction/renovation may take the full 2 years, the teachers can begin to introduce the new way of learning within their classrooms.

FRANKLIN COUNTY SCHOOL DISTRICT

Exhibit 1

Preliminary Financial Projections for two STEM Labs

<u>Start-up Costs</u>	<u>FCS Site</u>	<u>ABC Site</u>	<u>Total</u>
- Cost of building or renovating STEM Lab, including necessary technology	50000 (3)	750000 (1)	800000
- PLTW Curriculum	45000	15000	60000
- Professional Development w/stipend and travel	38000	22000	60000
Total Start-up Costs	133000	787000	920000
- Less cash investment from Schools (FCS and ABC)	0	(200000)	(200000)
Total - Triumph funding request over 2 1/2 years	<u>133000</u>	<u>587000</u>	<u>720000</u>
<u>Annual Incremental Operating Expenses</u>			
- add 1 full-time STEM teacher each site	55000	55000	110000
- other operating expenses	7000	5000	12000
-stipends for teacher PD	9000	4000	13000
Total - All local funding	<u>71000</u>	<u>64000</u>	<u>135000</u>
Net present value (NPV) of operating expenses (2)	<u>1109170</u>	<u>999800</u>	<u>2108970</u>
<u>Summary of Costs and Expense Sharing</u>			
Triumph Funding Request	<u>133000</u>	<u>587000</u>	<u>720000</u>
District Funding			
Cash Investment during construction	0	200000	200000
Operating Expenses (NVP)	1109170	999800	2108970
	<u>1109170</u>	<u>1199800</u>	<u>2308970</u>
Total Project Funding - Triumph and FCSD Schools 25 years	<u>1242170</u>	<u>1785800</u>	<u>3028970</u>

(1) 3,000 sq ft at \$250/sq ft

(2) Assumes 25 yr life at a 4% discount rate

(3) Renovation of existing bulding