AMIkids Panama City Marine Institute
Triumph Gulf Coast Grant Request 2020

Applicant Information:

Name of Entity/Organization: AMIkids Panama City Marine Institute

Background of Organization:

AMIkids Panama City Marine Institute (PCMI) has been serving youth and young adults in Bay County Florida and 5 surrounding counties since 1974. Located on St Andrew's Bay, beside the City Marina, PCMI has operated an alternative educational program with a strong emphasis on nautical and environmental activities as the focal point for helping at-risk kids turn their lives around. In the past few decades, the educational portion expanded and became a contract school with the district, graded very similarly to a charter school. In the last two years, PCMI has provided the Gaetz Aerospace Institute, Sea Cadets, Water Safety, Business Leadership, and Outdoor Education classes to high school students from North Bay Haven Charter Academy. AMIkids PCMI is accredited by Cognia.

Federal Employer Identification Number: 59-1546202

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Co-applicants, partners, or other entities or organizations that will have a role in the proposed project and such partners proposed roles:

- Embry Riddle Aeronautical University – Concurrent enrollment for Aerospace classes
- St. Andrew Bay Watch - Coordinates environmental projects such as water testing, and sea grass/shoreline restoration
- Florida Fish and Wildlife Conservation Commission - Manages environmental projects such as scallop and oyster re-seeding
- Florida Masonry and Apprenticeship Education Foundation - Sponsor agency for construction curriculum
- AMIkids Inc. - Home office provides administrative support in areas such as finance, human resources, communication, and education
- US Department of Labor- Re-entry grant sub awardee
- National Center for Construction Education and Research (NCCER)– Provides curriculum and testing for industry recognized certifications
- Florida Restaurant and Lodging Association - Provides curriculum and testing for industry recognized certifications
- TechFarms - Technology and entrepreneurship mentor

- Reliant South Construction Group – Construction mentor
- New Community Homes - iC Concrete application and construction mentor

Financial status:

AMIkids Panama City Marine Institute Inc. is in good financial status with reserves and a positive fund balance. AMIkids Panama City Marine Institute is a member organization of AMIkids Inc. and all financial policies, procedures and practices are regulated by the parent organization. Internal and external audits are conducted annually with no major findings. Attached is our Annual External Audit Findings. AMIkids Panama City Marine Institute Inc., and PCMI Properties Inc. (holder of the tangible assets) have never filed for bankruptcy since incorporation in 1974.

Eligibility:

- **Program Purpose**

The proposed project qualifies for a grant to support programs that prepare students for future occupations and careers, namely unmanned systems and construction, in the disproportionately affected county of Bay and the surrounding counties. The unmanned systems course will introduce students to emerging technology fields such as unmanned systems and robotics. The construction course will certify students in NCCER CORE, Carpentry, OSHA 10 and Masonry and will specialize in iC panel construction.

Courses offered will:

- Provide industry recognized certifications;
- Create an alternative graduation pathway by substituting industry certifications for a math and a science credit and encouraging the 18 credit diploma with a subsequent enrollment in a college or advanced technology career school;
- Encourage students to pursue careers in the Marine Science, Biology, Unmanned Systems, Engineering, Robotics, and Construction fields;
- Provide transferable, sustainable workforce skills not confined to a single employer;
- Promote the workforce required to support the tourism industry.

- **Program Description**

The name of the proposed charter school is **AMIkids Maritime Academy**.

AMIkids Panama City Marine Institute located at 200 East Beach Drive, Panama City, Florida, is currently pursuing a Charter to provide public education for up to 150 students in grades 9-12

in Bay County. The proposed start date of the charter is August 2021. The first year will start with the 9th grade only and the school will add a grade a year until all four years are represented. Initially courses will be offered in:

- Gaetz Aerospace Institute - Unmanned Systems, Concurrent enrollment with Embry Riddle Aeronautical University, college credit courses that lead to licensure to operate unmanned systems, industry recognized certifications in:
    - Air Land and Sea
    - AS121 Private Pilot Ground School (5 Credits)
    - AS 220 Unmanned Aircraft Systems (3 Credits)
    - AS 222 UAS Security (3 Credits)
    - AS 235 UAS Operation and Cross Country Data Entry (3 Credits)
    - AS 237 UAS Applications in Aerial Photography (3 Credits)
    - Preparation for the Remote Pilot exam and certification.
- National Center for Construction Education and Research (NCCER)
    - CORE
    - OSHA 10
    - Masonry
    - Carpentry certifications.
- Florida Restaurant and Lodging Association
    - Serve Safe Food Manager
    - Safe Staff Food Handler certifications
- American Red Cross
    - Lifeguarding
    - Administering Emergency Oxygen
    - First Aid
    - CPR for the Professional Rescuer.

AMIkids Panama City Marine Institute (PCMI) has a proven track record of providing quality education that prepares students for higher educational opportunities. For the last two years we have partnered with North Bay Haven Charter High School. PCMI provided the Gaetz Aerospace Institute, Business Entrepreneur, Sea Cadet, Water Safety and Outdoor Education classes. We are accredited by Cognia. On May 21st, we will end our partnership with North Bay Haven and we will once again operate our educational program independently as we have since 1974. AMIkids PCMI also operates a vocational training program with funding from the U.S. Department of Labor for NCCER CORE Carpentry, OSHA 10, and Florida Restaurant and Lodging Serve Safe and Safe Staff certifications.

The purpose of the grant request is to assist with continuation and sustainability of Career & Technical programming with industry recognized certifications under the new charter model until the student population reaches the full proposed 150 slots and is financially self-supporting. The current renovation of the property can accommodate 150 students. New labs will be constructed on the first and second floors of the AMIkids Maritime Academy.

Planned Labs are as follows:

- ***Aerospace Science.*** This area will provide training which is in direct alignment with Embry Riddle Aeronautical University's standards for the Unmanned Aircraft Systems degree and Unmanned Vehicle program available at Gulf Coast State College.
- ***Construction Lab***. This lab will focus on construction methods using the latest pre-formed iC panel methods and concrete spraying. It will teach design and planning, materials procurement, assembly of forms, wiring and plumbing planning and installation, concrete mix preparation and application, window, door and flooring installation, interior and exterior finishing, and finally sales and marketing of the finished product, an insulated, lightweight, water and wind proof storage structure. In addition the students will learn to incorporate solar energy collection and storage into the structures to enable them to have lighting without connection to an electrical source. These methods of construction are scalable to larger structures such as single unit homes.
- ***Military Sciences Lab***. This lab will support the Sea Cadet program which prepares students for service academy or enlisted service. Combining with other programs located on site, there is an emphasis on the emerging technical fields such as unmanned systems and robotics.
- ***Science Labs.*** These labs support hands-on on-going environmental service learning projects in conjunction with Florida Fish and Wildlife, Baywatch and other environmental agencies. Projects include:
    - Oyster Reef Building project in West Bay
    - Sea Grass Protection
    - Shoreline Restoration
    - Coral Reef Studies
    - Sea Scallop population restoration for St. Andrew's Bay.

The labs will provide ample space for project-based learning as well as secure storage for the support equipment. The labs will leapfrog current technology and move to tablet-based systems linked to large LED screens for curriculum support. Additional meeting space and

storage will foster collaboration and support the development of a thriving STEM community with support and mentorship from our local STEM partners.

The plan for the AMIkids Maritime Academy is to expand its CTE programs each year and exponentially increase the number of students earning industry certifications. Partnering with industry leaders and advisors is an essential aspect of the curriculum. Students that complete CTE programs are ready to work as soon as they graduate.

The unmanned systems courses will be stand-alone to allow focus on content but will also be integrated into the Marine Science and Sea Cadet courses as we create a project-based learning unit that bridges the technology into other applications such as sea grass surveys, shoreline restoration surveys, and military applications such as reconnaissance and communications support. This will prepare students for real world applications in the Marine Sciences and the military as well as other local industrial applications such as Power Line surveys, Real Estate Photography, and coastal mitigation surveys for building permits.

If awarded, the Triumph funding will be used to:

- Hire an Aerospace Technology Instructor who will meet the requirements of both Embry Riddle Aeronautical University and the Florida Department of Education so that the students will qualify for college credit and the school will qualify for CAPE funding.
- Hire a teacher qualified for NCCER Construction and the Florida Department of Education to ensure both industry recognized certifications and high school credits towards graduation
- Purchase instructional equipment and support the operational expenses for the industry recognized certifications for the first three years of operation.

AMIkids PCMI's contribution to the AMIkids Maritime Academy will total approximately $5,187,560 and will include facility renovations, salaries and benefits for the other content teachers, operating expenses, and administrative expenses.

3. How the proposed project or program is considered transformational and how it will affect the disproportionately affected counties in the next ten (10) years.

The AMIkids Maritime Academy and its partners are working together to furnish our students with the skills needed to pursue careers in developing fields right here in Bay County. We believe that the unmanned systems and related engineering career paths in addition to the Construction Industry Recognized Certification courses will prepare Bay County students for the

new jobs that are coming soon to our area. Our courses align all of the focus areas of the *Northwest Florida Forward report*:

- Talent: Targeting our courses to key industry clusters such as unmanned systems, engineering, construction and tourism;
- Business Vitality: Supporting the emergence of the unmanned systems economy by providing students for Gulf Coast State College's Unmanned course;
- Infrastructure: Creating a state-of-the-art STEM Lab school that supports the preparation of college ready students capable of pursuing advanced degrees;
- Entrepreneurship & Innovation: Fostering the next generation of business entrepreneurs with college level courses that are heavily exposed to STEM fields;
- Quality of Place: Working with all of the local environmental agencies to ensure that St Andrew's Bay and Gulf Shoreline, which is the driving force for our tourism, continues to improve by monitoring water quality, restoring the scallops, restoring shorelines, bringing back the oysters in West Bay and protecting our Seagrass. The addition of a state-of-the-art STEM school located in Downtown Panama City will enhance the Quality of Place for a community in need of economic development.

4. Data and information available to demonstrate the viability of the proposed program.

The program design and plan is inherently viable as it will be fully integrated into the overall organizational infrastructure of AMIkids PCMI. Participation in the programs offered at the STEM school will be required by the 150 students annually when the school is fully enrolled by 2025.

AMIkids PCMI has a 4-year history of vocational training and has successfully implemented the Gaetz Aerospace Institute at our location for the 2-year partnership with North Bay Haven Charter Academy.

Data available to track the implementation and viability of the program moving forward are:

- Enrollment Data - Percentage increase annually towards full enrollment at 150 students;
- Certification Rate - Percentage of students enrolled in STEM certification courses that earn an Industry Recognized Certification;
- Placement Rate - Percentage of students that earn an Industry Recognized Certification that either attain employment in the Industry or related field and or are enrolled in a continuation course to attain a higher level of certification in the field;
- Graduation rate- Percentage of students who graduate within four years of their first enrollment in the 9th grade.

5. How the impacts to the disproportionately affected counties will be measured long term.

Long-term impact will be measured by comparing the average wages of the STEM graduates to the overall average wage for Bay County and the expansion of aerospace and concrete iC construction employment opportunities. It is expected that our graduates would earn more than the average wage for workers at entry-level jobs in Bay County and would therefore improve the County's economic outcomes. The addition of more skilled labor will attract more STEM related companies to Bay County, thus increasing employment in higher than average wage jobs. Enrollment rates in the unmanned systems courses at Gulf Coast State College will increase the viability of that program ensuring a steady pipeline of qualified and skilled workers in the field and increasing Bay County's ability to attract more STEM related businesses to relocate here.

An increase in the labor force for specialized iC construction methods will lead to an increase in the construction of low cost, hurricane proof, low maintenance single-unit housing for Bay and surrounding counties. It will also increase the use of iC construction methods for larger homes thus increasing the quality of life and tax base for the region.

6. How the proposed program is sustainable.

Once AMIkids Maritime Academy reaches full enrollment, the budget will support full staffing for all instructor positions and the replacement of training equipment as needed. The revenues will come from the Florida Department of Education and the Florida Education Finance Program as well as CAPE funding from certifications. Local fundraising through our specialty license plate and grants will supplement the FDOE funding and allow for future improvements. In addition, some educational support for vocational training will be supplied through grants from the U.S. Department of Labor for those students that qualify. See attached operating budget for expense and revenue details.

7. How deliverables for the proposed project will be measured.

We propose the following metrics to measure program success:

1. Enrollment Rate - Percentage increase annually towards full enrollment at 150 students;
2. Certification Rate - Percentage of students enrolled in STEM certification courses that earn an Industry Recognized Certification;
3. Placement Rate - Percentage of students that earn an Industry Recognized Certification that either attain employment in the industry or related field and/or are enrolled in a continuation course to attain a higher level of

certification in the field;

4. Graduation rate- Percentage of students who graduate within four years of their first enrollment in the 9th grade.

Priorities:

1&2. How the proposed projects meets the Triumph Fund priorities;

a. **Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment**. Return on Investment can be determined by percentage of STEM students that earn an industry recognized certification and then attain employment in a STEM field. STEM fields earn almost twice the average wage. If over 10 years AMIkids Maritime Academy produces 180 graduates, the estimated Triumph funded cost per STEM graduate would be $2,105. If half of the graduates attain employment in a STEM field, the average ROI could be $3,600,000 in additional taxable wages in Bay County/Northwest Florida for the $378,971 spent.

b. Increase household income in the disproportionately affected counties above national average household income. According to the Bureau of U.S. Labor Statistics, STEM jobs earn roughly twice the national wage average.

c. Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases. The STEM program is specifically designed to support the Unmanned System Program at Gulf Coast State College by enhancing enrollment and completion rates. Graduates that earn advanced degrees will supply a ready labor-pool for Tyndall Airforce Base and the incoming unmanned squadron support, as well as the research operations at Naval Support Activity Panama City.

d. Benefit the environment, in addition to the economy. In partnership with St. Andrew's Bay Watch, Florida Fish and Wildlife and NOAA, AMIkids Kids Maritime Academy conducts environmental research and restoration projects. Graduates can matriculate into the environmental sciences program at our local colleges and Universities.

e. **Provide outcome measures**. Data collected for the grant can be used by the Triumph Board, the Chamber of Commerce and other entities to determine the economic and environmental impact of the Triumph funding.

f. Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017. The unmanned systems course is designed with input from Prof. Lopez Baquero at Gulf Coast State College's unmanned systems program and the credits from Embry Riddle Aeronautical University

are transferable as well as the certifications.

g. **Are recommended by the board of county commissioners of the county in which the project or program will be located.** The project was not included in a county proposal.

3. Please explain how the proposed or program meets the discretionary priorities identified by the Board.

This proposal addresses the following discretionary priorities:

a. **Are considered transformational for the future of the Northwest Florida region.** Bay County currently has employment opportunities for unmanned systems; more will emerge with the unmanned squadron at Tyndall AFB. There is an outstanding unmanned systems college level program at Gulf Coast State College. With the addition of the Maritime Academy, Bay County will have a strong pipeline from school to work in the field, creating a strong attraction for more aerospace companies to locate here. Bay County could become drone USA.
b. **May be consummated quickly and efficiently.** The project has already been done at AMIkids Maritime Academy and the facility is ready for a phased start-up. The partnership with Embry Riddle Aeronautical University is already established. The leadership team is in place. PCMI has a long history of operating educational programs. The curriculum has already been adopted and the critical staff positions have been identified. The support materials that need to be purchased are already identified.
c. **Promote new jobs in the private sector with an income above regional average household income.** According to Florida's Great Northwest website, "Households in Northwest Florida earn a median yearly income of $49,549.35. 24% of the households earn more than the national average each year. According the Florida Office of Economic Impact, the average wage for a Bay County worker across all industries is **$40,652**. An average of salaries for unmanned systems pilots advertised on Indeed and Glassdoor is approximately $70,000.
d. **Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation.** Our courses align all of the focus areas of the Northwest Florida Forward report:
    a. **Talent**: Targeting our courses to key industry clusters such as unmanned systems, engineering, and tourism;
    b. **Business Vitality**: Supporting the emergence of the unmanned systems economy by providing students for Gulf Coast State College's Unmanned course;
    c. **Infrastructure**: Creating a state-of-the-art STEM Lab school that supports the preparation of college ready students capable of pursuing advanced degrees;
    d. **Entrepreneurship & Innovation**: Fostering the next generation of business entrepreneurs with college level courses that are heavily exposed to STEM fields;
    e. **Quality of Place**: Working with all of the local environmental agencies we will help ensure that the driving force for our tourism, our estuary, continues to

improve by monitoring water quality, restoring the scallops, restoring shorelines, bringing back the oysters in West Bay and protecting our Seagrass. The addition of a state-of-the-art STEM school located in Downtown Panama City will enhance the Quality of Place for a community in need of economic development.

e. Create new jobs in targeted industries to include: aerospace and defense, financial services/shared services, water transportation, artificial intelligence, cybersecurity, information technology, manufacturing, and robotics. With the addition of the Maritime Academy, Bay County will have a strong pipeline from school to work in the field, creating a strong attraction for more aerospace companies to locate here. Bay County could become drone USA.

f. **Promote industry cluster impact for unique targeted industries.** Unmanned systems are both targeted as an aerospace industry and are unique. Our Naval Support Activity has a strong research component in unmanned systems and Tyndall Air Force Base will soon house an unmanned squadron.

g. **Create new jobs with wages above national average wage (*e.g.*, similar to EFI QTI program, measured on graduated scale).** The national average wage index in 2018 was $52,145.80 according to the Social Security Administration. The average estimated wage for remote pilot operators is approximately $70,000.

h. Create a unique asset in the region that can be leveraged for regional growth of targeted industries. A Maritime Academy with a strong Aerospace program, located on the Bay and also involved with environmental initiatives will dramatically enhance the image of Bay County and Northwest Florida as a leader in unmanned and aerospace technology development.

i. Demonstrate long-term financial sustainability following Triumph Gulf Coast, Inc. funding. Charter Schools are a very solid and predictable business model with dedicated funding streams that enjoy robust support from the state.

j. Leverage funding from other government and private entity sources. Operating a charter school attracts more funding for vocational training. Our emphasis on environmental projects attracts federal and state funding.

k. Provide local investment and spending. The program is designed to provide more students for Gulf Coast State College and the Engineering programs at FSU.

l. Provide clear performance metrics over duration of project or program. AMIkids Maritime Academy is evolved from the AMIkids PCMI program which has been in continuous operation since 1974, providing educational programs for Bay County students. Transition to a Charter Status will create a strong foundation for continued services for the next few decades. The performance metrics will remain stable for the foreseeable future.

4. The Program will be located in Panama City, Bay County Florida at 200 East Beach Dr.

5. This proposal was not on a list of projects submitted to Triumph Gulf Coast, Inc., by any of the disproportionately affected Counties.

6. **This project is not part of a County initiative and was not submitted through the County Commission process.**

Approvals and Authorities:

1. The charter project has already been approved by the AMIkids Panama City Marine Institute Board of Directors. The application for Triumph funding has already been approved.
2. Approval for a final written grant contract with Triumph Gulf Coast will be required by the Executive Committee of the Board of Directors which can hold a special meeting with 48 hours' notice. The schedule for full Board Meetings from now are:
    a. 12:00 pm, June 12th, 2020 at PCMI;
    b. 12:00 pm, August 14th, 2020 at PCMI;
    c. 12:00 pm, October 9th, 2020 at PCMI;
    d. 5 PM, December 12th, 2020 at PCMI.

3. Program Timeline if an award of funding is approved, including milestones that will be achieved following an award through completion of the proposed project or program.

Timeline

Construction and program plans are already in progress for the new science labs.
We have a planned completion of June 2021.

If funded, academic program planning will begin immediately in preparation of the new facility and programs. Timeline is as follows:

- August 2020 - Submission of the charter application
- November 2020 - Formal notification of award of the charter for 2021
- January 2021 - Start advertising campaign for charter enrollment
- February 2021 - Hold Open House Events for local middle schools
- March 2021 - Open enrollment for 2021 school year for 9th grader.
- May 2021 - Hire Aerospace and Construction Instructors
- June 2021 - Enroll Sea Cadets and start summer training sessions to engage new students
    - Purchase support materials for Aerospace and Construction courses
    - Send Aerospace Instructor to Embry Riddle for summer training sessions
      Send Construction Instructor to NCCER training programs
- July 2021- Hold summer day camps in aquatic activities for incoming students
    - Send Construction Instructor to iC fabrication plant in Mississippi for training
    - Purchase iC panel assembly tools
    - Purchase concrete mixing/shooter machine for iC panel construction
- Summer of 2021 - Send Sea Cadets to Summer Recruit Trainings regionally
- August 2021 - Start Operations of Charter for 2021-2022 School year

  - Start first cohort of Aerospace students in AOPA flight school course
  - Start first cohort of Construction students in NCCER CORE, Carpentry and OSHA 10 class
  - Start Marine Science Students in Marine Science 1
- January 2022 - Cohorts switch tracks for second semester
- February 2022 - Open house to showcase curriculum for parents and students for 2022-23 school year
- May 2022 - First Year complete
  - 9th graders completed AOPA training and NCCER CORE, Carpentry, and OSHA 10 certifications
- Summer 2022 - Sea Cadets attend summer advanced trainings, new cadets attend recruit basic training
- August 2022 - 10th grade added
  - 10th graders start UAS program
  - 10th graders start NCCER Masonry
- January 2023 - Cohorts switch tracks
  - 10th graders complete UAS Safety Certification
  - 10th graders complete Masonry Certification
- May 2023 - Second year complete
  - 10th graders complete Visual Line of Sight Operator certification
  - 10th graders complete iC construction training
- June-July 2022 - Teachers attend Embry Riddle summer trainings
- August 2022 - Start of 3rd year and addition of the 11th grade
  - Aerospace students start study for Remote Pilot's License exam
  - Construction students switch to Food Service and Tourism training track
- January 2023 - First cohort of Aerospace students complete remote pilots' exam preparation and start internship opportunities; tourism track has completed Lifeguard training and starts food service certification track
- February 2023 - Open house to showcase curriculum for parents and students for 2023-24 school year
- May 2023 - First Cohort of Aerospace students have completed curriculum and can register for follow up classes at Gulf Coast State College in unmanned systems for 12th grade year
  - First Cohort of Construction and Tourism students have completed all certification training and can register for advanced classes for the 12th grade year at Gulf Coast State College in Culinary Arts or Manufacturing
- August 2023- 12th grade added and school is fully funded by FTE and CAPE funding

4. Authority to execute this proposal on behalf of AMIkids Panama City Marine Institute, Inc.
Either the Executive Director or the Chairman of the Board are authorized to conduct business on behalf of AMIkids Panama City Marine Institute, Inc., in accordance with the By-Laws. See Attached.

Funding and Budget:

1. **Amount of funding sought from Triumph Gulf Coast, Inc. and the time-period over which funding is requested.**

AMIkids Panama City Marine Institute requests a total of $378,971 for the project to be distributed over a period of three years between August 2021 to August 2023 in three draws of:

- August 2021: $143,154
- August 2022: $116,240
- August 2023: 119,577

2. **The percentage of total program costs the requested award from Triumph Gulf Coast, Inc. represents is $378,971.**

The requested award of $378,971 represents less than 2% of the total project cost.

3. **The types and numbers of jobs expected from the proposed program and the expected average wage.**

The proposed project expects to have an impact by increasing the candidate pool for both sub-baccalaureate and highly-skilled STEM-related positions. Over 80 students attend PCMI each year with an expected enrollment to increase to 150 by 2025. The types of positions that can be filled are both sub-baccalaureate and highly skilled positions in professional areas such as unmanned systems and aerospace technology.

Job Description	Avg. Wage	Projected Annual jobs starting 2025
Bay County Average Wage	**$40,652**	
Remote Pilot	**$70,000**	**10**
Restaurant Manager	**$42,825**	**2**
Mason	**$41,766**	**3**
Construction Worker	**$41,046**	**6**
Carpenter	**$35,838**	**5**
Concrete iC panel construction worker	**$34,590**	**6**
Lifeguard	**$25,875**	**3**
Restaurant Worker	**$22,880**	**5**
Average Wage for 2025 Cohort	**$43,339**	

4. How the potential award supplements existing funding sources.

If funded, the grant would be used to purchase training materials not funded by any other source at this time. The two staff positions would not be fundable by FTE dollars until the school reaches maximum enrollment, which will delay the first graduates with advanced Remote Pilot's licenses an additional 3-4 years from the opening of the school.

5. Program Budget. Including all applicable costs and other funding sources to support the proposal.

AMIkids Panama City Marine Institute
Triumph Gulf Coast Grant Request 2020

	50 students	100 students	150 students	150 students	150 Students
	2021-2022	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Expense Categories	Total Budget	Total Budget	Total Budget	Total Budget	Total Budget
Personnel Expenses					
Salaries (including number and type of Full Time Employees) **See Examples below**					
1.0 Salary for Lead Teacher	$ 45,000.00	$ 45,000.00	$ 47,000.00	$ 48,410.00	$ 49,862.00
Salaries for 2 wraparound staff	$ 78,000.00	$ 78,000.00	$ 80,340.00	$ 82,750.00	$ 85,233.00
.5 Salary for Executive Director	$36,396	$ 36,396.00	$ 37,487.00	$ 38,611.00	$ 39,769.00
Teacher Salaries	$80,000	$ 120,000.00	$ 200,680.00	$ 246,000.00	$ 253,380.00
Support Staff Salaries		$ 36,000.00	$ 37,080.00	$ 108,192.00	$ 111,438.00
Benefits	$ 55,061.00	$ 80,912.00	$ 99,039.00	$ 129,335.00	$ 133,215.00
Triumph Vocational Instructor Salaries and	$ 108,000.00	$ 111,240.00	$ 114,577.00	$ -	$ -
Personnel Expenses Subtotal	**$ 402,457.00**	**$ 507,548.00**	**$ 616,203.00**	**$ 653,298.00**	**$ 672,897.00**
Direct Expenses					
Administrative Expense	$ 188,101.00	$ 186,744.00	$ 192,346.00	$ 198,116.00	$ 204,059.00
Student Care Expense	**$ 2,000.00**	$ 2,060.00	$ 2,129.00	$ 2,193.00	$ 2,259.00
Triumph Student Education Expense	**$ 5,000.00**	$ 5,000.00	$ 5,000.00		
Student Education Expense	**$ 25,000.00**	$ 25,750.00	$ 26,523.00	$ 27,319.00	$ 28,139.00
Maintenance Expense	**$ 28,700.00**	$ 29,561.00	$ 30,448.00	$ 31,361.00	$ 32,302.00
Equipment Expense	**$ 7,000.00**	$ 7,210.00	$ 7,426.00	$ 7,649.00	$ 7,878.00
Triumph Equipment Expense	**$ 30,154.00**				
Depreciation Expense	**$ 64,285.00**	$ 64,285.00	$ 64,285.00	$ 64,285.00	$ 64,285.00
Advertising	$ 13,000.00	$ 13,587.00	$ -		
Library and lab Furnishings	$ 25,000.00				
Direct Expenses Subtotal	**$ 388,240.00**	**$ 334,197.00**	**$ 328,157.00**	**$ 330,923.00**	**$ 338,922.00**
Expense Total					
Expense Total	**$ 790,697.00**	**$ 841,745.00**	**$ 944,360.00**	**$ 984,221.00**	**$ 1,011,819.00**

	2021-2022	**2022-2023**	**2023-2024**	**2024-2025**	**2025-2026**
Revenue Categories	Total Budget	Total Budget	Total Budget	Total Budget	Total Budget
Revenue					
Cash	$ 300,000.00				
Florida FTE	$ 280,000.00	$ 560,000.00	$ 840,000.00	$ 840,000.00	$ 840,000.00
Fund Raising	$ 220,000.00	$ 225,000.00	$ 230,000.00	$ 235,000.00	$ 240,000.00
Triumph Grant	$ 143,154.00	$ 116,240.00	$ 119,577.00	$ -	$ -
Revenue Subtotal	**$ 943,154.00**	**$ 901,240.00**	**$ 1,189,577.00**	**$ 1,075,000.00**	**$ 1,080,000.00**
Expenses					
Personnel Expenses Subtotal	$ (402,457.00)	$ (397,508.00)	$ (503,126.00)	$ (654,998.00)	$ (674,597.00)
Direct Expenses Subtotal	**$ (386,086.00)**	$ (329,197.00)	$ (323,157.00)	$ (330,923.00)	$ (338,922.00)
Direct Expenses Subtotal	**$ (788,543.00)**	**$ (726,705.00)**	**$ (826,283.00)**	**$ (985,921.00)**	**$ (1,013,519.00)**
Net Total					
Total	**$ 154,611.00**	**$ 174,535.00**	**$ 363,294.00**	**$ 89,079.00**	**$ 66,481.00**

A. Project/Program Costs: $2,341,531 operational expense with an additional estimated 2.5 million in facility renovation expenses.

B. Other Project Funding Sources: Over a 5 year period:

Source	In-kind/Cash	Amount
Insurance Reimbursement for Hurricane Damage	CASH	$3,840,000
Florida FTE Calculation 2021-2024	CASH	$1,680,000
Local Fundraising	CASH	$675,000
TOTAL FUNDING SOURCE		$6,195,000
Source		In-kind/Cash

C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.

Budget Narrative

Revenue

Cash: AMIkids Panama City projects to have a starting cash position of approximately $300,000 on August 2021. Currently there is over $550,000 in cash and short-term investments, but an entire year with revenue associated with the expenses of starting a charter are projected to draw down our reserves.

FTE: The primary source of funding for the Charter School is FTE funding based upon student counts conducted in the fall and spring. Revenue budgeted in this category is based upon current average per pupil FTE generated revenue for the base allocation and categorical revenue as calculated by a Florida DOE Charter School spreadsheet. The first year average student population projection is 50 with an additional 50 students a year until the student population reaches 150. The first payment from the district is estimated to be received in November of 2021, with subsequent payments each semester after the student count is completed thereafter.

Federal Department of Labor: We are currently on the first year of a three-year grant from the U.S. Department of Labor to provide vocational training. We anticipate an additional added grant for a different age bracket in 2021, but since this has not been awarded as of yet, it is not reflected in the budget.

Insurance Claims: We are still processing claims from Hurricane Michael and have completed approximately 40% of the anticipated renovation work.

Local Fundraising: AMIkids raises funds locally through grants and a specialty license plate originally sponsored by Senator Don Gaetz and Representative Jimmy Patronis. The plate raises over $200,000 a year and the remainder of the local fundraising varies in source but often exceeds an additional $100,000 a year.

Expenses

Personnel Expenses: The following is a list of staffing current and projected.

Position	Funding Source	FTE	Start Date
Administration 1. Executive Director 2. Business Manager	44% DOL 56% Resource Dev.	2	2014
Department of Labor Grant (DOL) 1. Vocational Instructor 2. Case Manager 3. Job Placement Specialist	DOL	3	2019
Wraparound Grant (Systems of Care) 1. Case Manager 2. Peer Specialist 3. Billing Clerk	SAMHSA/Florida DCF/Big Bend Community Based Care	5	2016
Maritime Academy	North Bay Haven Charter School	3	2018-2020
AMIkids Maritime Academy	FEFP	3	2020-
Triumph Vocational Instructors 1. Aerospace Instructor 2. Construction Instructor	Triumph 2021-2024 FEFP 2024+	2	2021

All staff are provided with health insurance and retirement benefits on a cost-sharing basis.

Administrative Expenses include:

- Mortgage, interest, and utilities for the 40,000 square foot school building and the surrounding grounds and out buildings;
- Insurance for both property and liability;
- Other personnel expense such as training;
- Office supplies and copier expense;
- Oversight and auditing fees.

Student Care Expense includes clothing, first aid supplies and contracted health services.

Educational Expenses include:

- Educational software licenses;
- Embry Riddle curriculum and registration costs; (Triumph 2021-2024)

- Classroom materials;
- Student trips;
- Physical education expenses for the ropes course, seamanship, aerospace and aquatics;
- Vocational supplies and expense; (partially Triumph 2021-2024)
- Testing fees.

Maintenance Expense includes:

- Boat and dock maintenance on 2 27' motorboats and a 9 slip dock as well as assorted inflatable and small sailing craft;
- Vehicle Maintenance for a 12 passenger van;
- Building and grounds maintenance for 5 buildings and several structures;
- Equipment maintenance.

Equipment Expenses,

- Ropes Course equipment replacement;
- Aquatics equipment such as CPR, O2, Lifesaving, fishing, seamanship and scuba equipment;
- Vocational equipment and tools.

Triumph Equipment Expense:

- Flight Simulator (2) at $3595 ea.;
- 3D printer (1) $3,918;
- Electronics Bench Fabrication, Repair and Testing Equipment $1,946;
- Mortar Sprayer (1) $16,000;
- Concrete and iC panel tools $1,000.

Depreciation is to replace building improvements, vehicles, vessels and equipment when they have reached the end of their lifespan.

1. Applicant understands that the Triumph Gulf Coast, Inc. statute requires that the award contract must include provisions requiring a performance report on the contracted activities, must account for the proper use of funds provided under the contract, and must include provisions for recovery of awards in the event the award was based upon fraudulent information or the awardee is not meeting the performance requirements of the award.

    - Yes

2. Applicant understands that awardees must regularly report to Triumph Gulf Coast, Inc. the expenditure of funds and the status of the project or program on a schedule determined by Triumph Gulf Coast, Inc.
    - Yes

3. Applicant acknowledges that Applicant and any co-Applicants will make books and records and other financial data available to Triumph Gulf Coast, Inc. as necessary to measure and confirm performance metrics and deliverables.
    - Yes

4. Applicant acknowledges that Triumph Gulf Coast, Inc. reserves the right to request additional information from Applicant concerning the proposed project or program.
    - Yes

ADDENDUM FOR WORKFORCE TRAINING PROPOSALS

1. Program Requirements

A. Will this proposal support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties? If yes, please identify where the campuses are located and provide details on how the proposed programs will prepare students for future occupations and at which K-20 institutions that programs will be provided.

- Yes. The proposed program will take place in Panama City at the PCMI campus located at 200 East Beach Dr., Panama City, FL 32401, and the aerospace portion is linked to Gulf Coast State College's Unmanned Systems course located in Panama City Florida. The program will prepare students for future jobs in aerospace at Tyndall Air Force base in support of the Drone Squadron and at the Naval Support Activity in Panama City Beach. In addition, the Chamber of Commerce and TechFarms are actively recruiting aerospace industries to Bay County for future employment opportunities.

B. The Proposed Program will:

- Increase student's technology skills and knowledge by providing a hands-on technology experience with real-world application.
- Provide a curriculum that includes Industry recognized certifications in aerospace and construction, and all students in the school will cycle through the courses.
- Provide rigorous, alternative pathways for students to meet high school graduation requirements by substituting industry recognized certifications for one math and one science requirement as well as offering the 18 credit graduation option with matriculation to Gulf Coast State College or FSU.
- Strengthen Career Readiness Initiatives by providing work-ready certifications, internships, pathways to advanced certification, training and job placement services.
- Encourage students with an interest or aptitude for science, technology, engineering, mathematics and medical disciplines to pursue a post-secondary education at Gulf Coast State College and FSU by providing introductory coursework in the disciplines and tours and classroom visits as well as coordinating with the recruitment and registration departments of both systems.

C. Will this proposal provide participants in the disproportionately affected counties with transferrable, sustainable workforce skills but not confined to a single employer?

- Yes, the certifications and college credits are transferable to Gulf Coast State College and Embry Riddle Aeronautical University as well as other educational institution accredited by AdvancedEd. NCCER Construction certifications are nationally recognized.

D. Identify the disproportionately affected counties where the proposed programs will operate or provide participants with workforce skills.

- The proposed program will operate in Bay County. However, upon graduation, participants from the program will be talent available throughout the entire Northwest Florida regional workforce pipeline.

E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote:

- Economic recovery will be supported by increasing the number of qualified talent that can attract technology companies to locate in Northwest Florida and Bay County. The addition of a Maritime Academy with a strong Aerospace component in downtown Panama City adds to the quality of life for the area and attracts families with school children to locate in our area. The addition of a technology STEM school in downtown Panama City will also attract other technology businesses and start-ups to locate there and improve the economic recovery.
- Economic Diversification is improved by supporting an emerging aerospace business hub in Bay County and Northwest Florida. Light industry in the emerging technology fields supports other technology startups and diversifies the local economy with high paying and light impact manufacturing.
- Enhancement of the disproportionately affected counties is achieved as the program is located in Bay County and is designed to prepare our workforce for employment in this region.
- Enhancement of a Targeted Industry is supported by the Gaetz Aerospace Institute portion of the training which prepares students for employment in the aerospace industry, which supports our two very important Department of Defense installations located in Bay County and the efforts by our Chamber of Commerce to attract more aerospace employers to our region.

2. Additional Information

A. **Is this an expansion of an existing training program? If yes, describe how the proposed program will enhance or improve the existing program and how the proposal program will supplement but not supplant existing funding sources.**

- We currently have the Gaetz Aerospace Institute in conjunction with Embry Riddle Aeronautical University operating at the Maritime Academy at PCMI. That program ends on May 21st and in order to continue it we will need to start a new charter school in 2021. Currently core courses of instruction are offered at North Bay Haven campus. When we go Charter on our own, we will need to offer the core courses in Math, English, Science and Social Studies ourselves. The initial FTE will not be enough to support the Gaetz Aerospace Institute and the NCCER Construction class. In this respect, it will be a new program and not an expansion.

B. Indicate how the training will be delivered (e.g., classroom-based, computer based, other). If in-person, identify the location (s) (e.g., city, campus, etc.) where the training will be available. If computer-based, identify the targeted location (s) (e.g., city, county) where the training will be available.

- The classes will take place at the PCMI campus in Panama City. Aerospace and NCCER Classes will utilize a combination of in-classroom instruction and computer-based instruction to both earn industry recognized certifications and to prepare for the license exams. Labs will be located on-site that support hands-on learning.

C. Anticipated enrollment for the first year will be 50 students with an additional 50 being added each year until the program reaches 150. The first cohort should complete the first aerospace certification level by December of 2022. After that the number will increase by 50 each year until 150 certifications is reached annually. The first 25 construction certifications will be completed in December of 2021, with an additional 25 being added every semester until the student population reaches 150.

D. The program will start in August of 2021 and the school will utilize a 4 period block schedule that allows for a full credit per period each semester and more classroom time daily to complete assignments.

E. The program will become self-sustaining utilizing FTE, local fundraising, and possibly Federal Department of Labor funding as soon as the 2024-2025 school year when it reaches 150 students. CAPE funding for industry recognized certifications should contribute greatly to the continuance of the Gaetz Aerospace Institute program at the AMIkids Maritime Academy when the program is fully enrolled and the number of certifications reaches 75 a year. Federal Department of Labor funding may be able to enhance the construction and food service classes for the students that are at-risk and that qualify, supplying additional instructional and job placement staff. The construction program may also be able to sell products created in the lab portion of the

course such as concrete weather resistant storage structures and even small single living units made from iC panels and sprayed on concrete.

F. Certifications will include:

- Unmanned Aircraft Systems (UAS) Operations
    - Small UAS Safety Certification
    - Visual Line of Sight Operations Certification
    - Remote Pilots License
    - Embry Riddle College Credit in Unmanned Systems. 12 credit hours.
- National Center for Construction Education and Research (NCCER)
    - CORE
    - Carpentry 1
    - Masonry 1
    - OSHA 10
- Florida Restaurant and Lodging Association
    - Serve Safe Food Manager
    - Safe Staff Food Handler
- American Red Cross
    - Lifeguarding
    - CPR for the Professional Rescuer
    - First Aid
    - Emergency Oxygen Administration
- Florida Fish and Wildlife Boating Safety

G. Local match includes over 3 years:

Source	In-kind/Cash	Amount
Insurance Reimbursement for Hurricane Damage	CASH	$3,840,000
Florida FTE Calculation 2021-2024	CASH	$1,680,000
Local Fundraising	CASH	$675,000
TOTAL MATCH FUNDING		**$6,195,000**

H. Attachments on the Gaetz Aerospace Institute and iC Panel Construction Technology follows.

Unmanned Aircraft Systems
A Disruptive Technology

$11.3 BILLION
Current Global Market for **Unmanned Aircraft Systems (UAS)**

TODAY

3 YEARS

$13.6 BILLION
Total economic impact within 3 years after UAS become a part of **US Airspace**

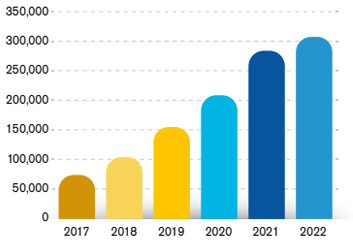
$82.1 BILLION
UAS in the United States between **2015 and 2025**

2015 – 2025

10 YEARS

$140 BILLION
UAS Global Market total **in 10 years**

Source: Association for Unmanned Vehicle Systems International

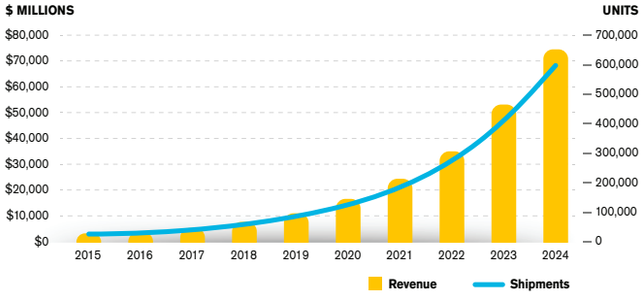


Remote Pilot Forecast

Over 300,000 new remote pilots in 5 years, providing tremendous opportunities for growth in employment associated with commercial activities

Diverse Market Needs

Agricultural Robot Revenue & Shipments, World Markets: 2015-2024



Invasion of the Drones

$13.6 BILLION
Economic impact of the first 3 years of integration of drones into the U.S. Airspace System

30,000
The number of drones the U.S. Federal Aviation Administration predicts to be in the nation's skies by 2020

50
Number of hours of training needed for basic drone pilot certification

70K
The estimated number of jobs the drone industry is expected to create by 2018

$104K
Average Annual Salary of a Drone Pilot

$482 MILLION
Tax revenue to the states in the first 11 years following National Airspace Integration

8 Examples of
Commercial Drone Applications

- Agriculture
- Law Enforcement
- Freight Transport
- Disaster Management
- Weather Monitoring
- Mass Media
- Wildfire Mapping
- Telecom

Numbers

788,570 Model Aircraft sUAS flying in U.S. in 2016

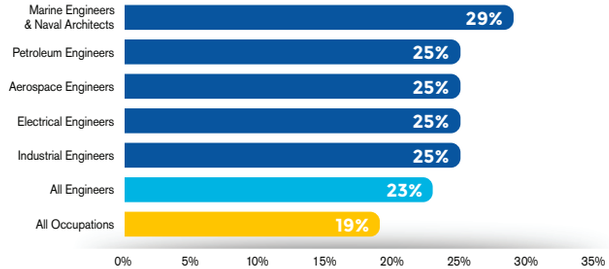
FFA projected units by 2023 **2.4 MILLION**

>110,000 Commercial operators registered UAS aircraft since 2016

Aging Workforce

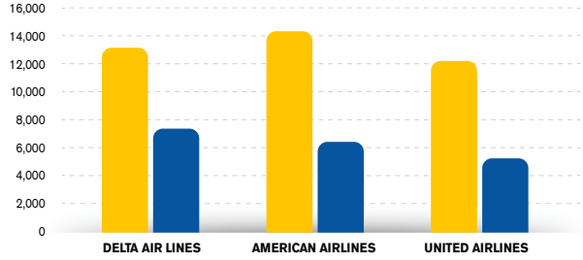
Baby boomers aged 55 and older are projected to represent 25% of the workforce by 2026 with an increase of 11.5 million new jobs over the next decade, reaching a total of 167.6 million jobs in 2026. Most jobs (87%) will require more than a high school education. 2.6 million STEM vacancies over the next decade and of those vacancies 94% will require a postsecondary education. *(Bureau of Labor Statistics, 2017)*

SHARE OF ENGINEERS IN THE WORKFORCE 55 AND ABOVE



Source: EMSI Class of Worker 2014.2 (Employees)

MANDATORY RETIREMENT VS. TOTAL PILOTS FOR MAJOR U.S. AIRLINES



Source: Airline Pilot Central, U.S. Global Investors

Mandatory retirement numbers are combined for years 2016-2027

GAETZ AEROSPACE INSTITUTE
EMBRY-RIDDLE AURONAUTICAL UNIVERSITY

OUR MISSION

To positively impact the trajectory of high school students by preparing them successfully to complete S.M.A.R.T.E.R. undergraduate degrees and connect them to profitable careers in the aerospace industry.

OUR VISION

To provide educational exposure, access and opportunities to our students for preparation in today's workforce.

CONTACT INFO

386-226-6560
dbgai@erau.edu

What Direction

Expanding non-model waivers:

- Night Operations: 86%
- Multiple Aircraft by One Pilot: 1.5%
- Operations above Current Altitude Limits: 1.3%
- Many combinations of multiple requests
- More than 1,600 in Dec 2017
- > 13,000 airspace authorizations

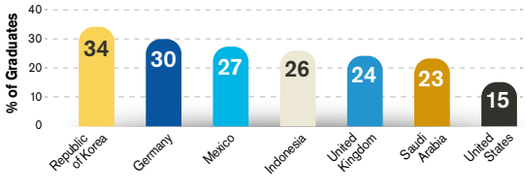
Low Altitude Authorization and Notification Capability

- Drone operators receive near real-time airspace authorizations
- Allows Air Traffic Controllers to see where planned drone operations will take place
- Drones operate safely in the same airspace with manned aircraft
- National Beta Test: South Central/Southeast April – August
- The Takeaway: UAS are being dovetailed into the NAS

Stem Graduates

In 2014-15, STEM Degree Conferred in the United States: 9% associate degrees, 17% of bachelor degrees, 8% were Master degrees and 9% of doctoral degrees earned. 46% of the STEM master degrees and 44% of STEM doctorates were conferred by non-resident aliens most likely here on student visas who will return home upon completion of their studies.

First-time college graduates in science, mathematics, and engineering



G-20 countries for first-time college graduates in science, math, & engineering.

A Typical Junior + Senior Year Student Graduates with:

- Experience in college as a Freshman at ERAU
- A STEM focused education
- Up to 12 College Credits ($17,200)
- 10% of college completed
- Industry Certifications: PPGS, SUAS, VSO, Part 107
- A greater sense of what is actually possible

Instructional Models

Dual Enrollment Model 1:

- Approved high school faculty delivers ERAU courses
- Ideal for: High schools with existing faculty that meet ERAU's faculty credentialing process

Dual Enrollment Model 2:

- Credentialed ERAU faculty delivers ERAU courses
- Ideal for: Places where credentialed high school faculty cannot be obtained

A Sample UAS/Flight Track

Aviation Algebra, Aviation Physics*, **PreReq's Required, Industry Certs†**

09	10	11	12
Air, Land & Sea† an Exploratory Course of Manned and Unmanned Technologies or Aerospace Technology I	**AS 121†** Private Pilot Ground School **AS 121†** Private Pilot Ground School/ ASC 101	**AS 220†** Unmanned Aircraft Systems *FAA Part 107 **AS 235†** Unmanned Aircraft Systems Operation & Cross Country Data Entry	**AS 237†** UAS Applications in Aerial Photography **BA 201** Principles of Management

A Sample UAS Track

Aviation Algebra, Aviation Physics*, Industry Certs†**

09	10	11	12
Air, Land & Sea† an Exploratory Course of Manned and Unmanned Technologies	**AS 120** Principles of Aeronautical Science **AS 220†** Unmanned Aircraft Systems *FAA Part 107 *SUAS	**AS 222** UAS Security **AS 235†** Unmanned Aircraft Systems Operation & Cross Country Data Entry ** VSO	**AS 237†** UAS Applications in Aerial Photography **BA 201** Principles of Management

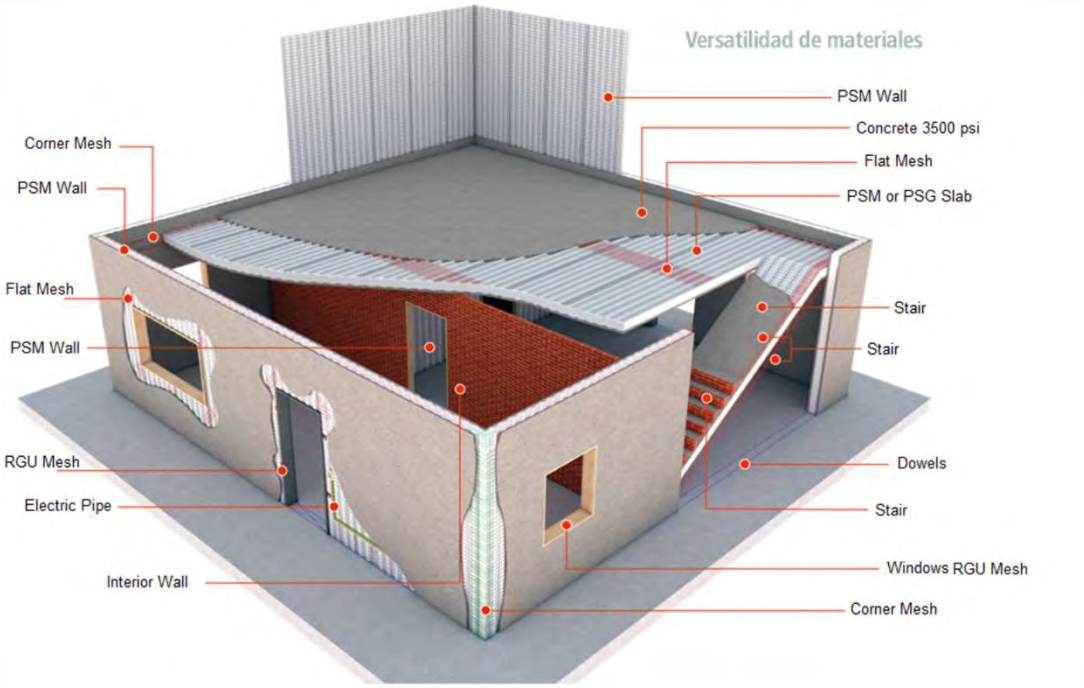
Proposed UAS/Flight Track (17 credits)

****CAPE funding associated course, Industry Certs†**

09	10	11	12
Aerospace Technologies I or **Air, Land & Sea†**	****AS 121†** Private Pilot Ground School 5 cred	****AS 220†** Unmanned Aircraft Systems 3 cred **AS 222** UAS Security 3 cred	****AS 235†** UAS Operation & Cross Country Data Entry 3 cred ****AS237†** UAS Applications in Aerial Photography 3 cred

EMBRY-RIDDLE
Aeronautical University
GAETZ AEROSPACE INSTITUTE

FLIGHT/UAS
HIGH SCHOOL PROGRAMS



Residential Training Session

STRUCTURAL INSULATED BUILDING COMPONENTS

GCT

- Introduction
- Components Description
- Applicable Code
- Thermal Characteristics
- Construction
- Projects
- Conclusion
- Questions?

PROGRAM

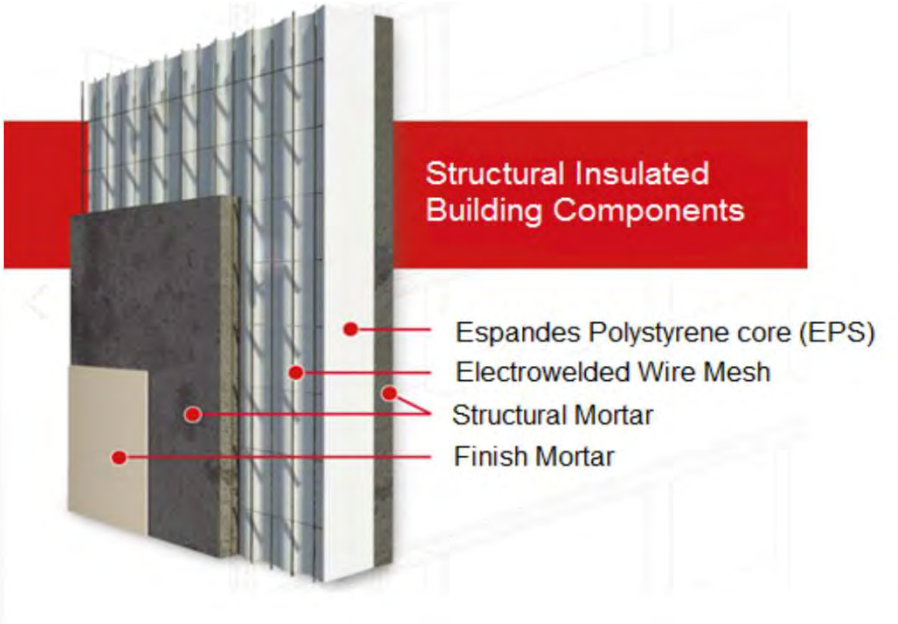
“Build It Right Once, the First Time”

Introduction

- Structural Insulated Building Components (SCIP's) was development in Italy.
- This Building System has been in the construction market for more than 30 year.
- There is only one SCIP Technology modified in the USA and Puerto Rico for code compliances.
- OPGE has approved the USA made SCIP for construction in PR.
- Easy installation, and its properties allow resistant design for hurricane and seismic.
- Achieve High R value for energy efficiency, this make a structure more efficient in cooling energy and electric equipment.
- The technology suits Residential, Commercial and Industrial market.
- There were many structures in Puerto Rico built with this technology before Hurricanes Maria and Irma and many has been built after them.

Description - Structural Insulated Building Components

PSM Component



- PSG Component

Description - Steel Welded Wire Mesh

- The Galvanized Steel welded wire mesh is made from Steel with mínimum fracture of 95 KSI, and it also comply with ACI 318-14 Section 20.2.1.7 and IBC Section 1903
- Longitudinal or principal direction wire are 3.0 mm (11 gauge) in thickness and has equivalent spacing of 3.0” o.c
- Transverse or secondary direction wire are 2.5 mm (12.5 gauge) in thickness and has a uniform spacing of 2.6” o.c
- The front and back wire mesh layer are connected together along the longitudinal direction in six (6) rows with the 3.0 mm (11 gauge) wire.

Description - Mortar Application

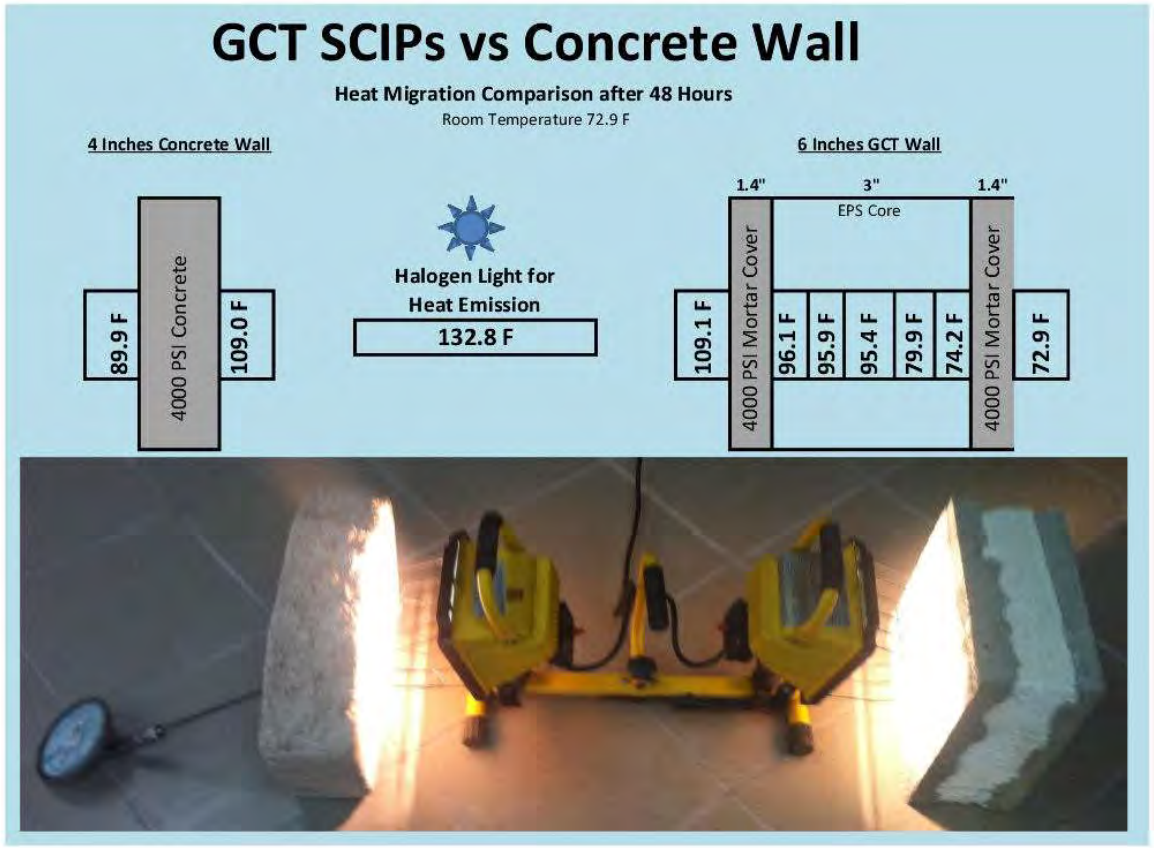
- For Application in the SCIP, Structural Mortar Mix is recommended because it has a compressive strength of 4,000 psi
  - The Mortar Mix is a single component Portland cement-based plaster containing additives to enhance its bonding strength
  - The mortar contain additives to enhance the properties in addition to making it easy to place and finish.
- Low-pressure mortar application machines is highly recommended for speed, quality and consistency.
- The mortar used must have the following characteristics:
  - Comply with ASTM C387
  - Minimum compressive strength of 4,000 psi at 28 day according to ASTM C387
  - Maximum aggregate size: 3/16”
  - Aggregate must conform to: ACI 506-05 Table 1.1

Applicable Codes

- 2012, 2015 and 2019 International Building Code (IBC)
- 2012, 2015 and 2018 International Residential Code (IRC)
- 2012, 2015 and 2018 International Energy Conservation Code (IECC)
- 2014 and 2017 Florida Building Code (FBC)
- **2016 and 2018 Puerto Rico Building Code (PRBC)**
- ACI 318 – Building Code Requirements for Structural Concrete
- ACI 506R – Guide to Shotcrete
- ANSI/ASHRAE/IES Standard 90.1 – Energy Standard for Building Except Low-Rise Residential Building.
- ASCE7- Minimum Design Loads for Buildings and Other Structures
- ASTM C387 – Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar

Applicable Codes

- ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- ASTM D1929 – Standard Test Method for Determining Ignition Temperature of Plastics
- ASTM E72- Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- ICC 500 – ICC/NSSA Standard for the Design and Construction of Storm Shelters (ICC 500)
- TAS 201 – 203 Impact Test Standards, Static Pressure and Cyclic Wind Pressure
- UL 752 – Standard For Bullet- Resisting Equipment
- U.S. Department of Justice: National Institute of Justice Technology Assessment Program-Ballistic Resistant Protective Materials (NIJ Standard 0108.01)



Thermal Characteristics

R Values from 12 to 34 Depending of Component Section Thickness

Technical Evaluation Report (TER)

5.8. R-values and U-factors assigned to GCT panels, shown in Table 13.

Table 13: GCT Panel R-Values & U-factors[1,2]

GCT Panel Type	R-Value	U-factor	GCT Panel Type	R-Value	U-factor	GCT Panel Type	R-Value	U-factor	GCT Panel Type	R-Value	U-factor
PSM or PSM-Slab	°F × h × ft²/Btu	Btu/°F × h × ft²	PSG	°F × h × ft²/Btu	Btu/°F × h × ft²	PSG	°F × h × ft²/Btu	Btu/°F × h × ft²	PSG	°F × h × ft²/Btu	Btu/°F × h × ft²
60	9	0.10	PSG2 100	20	0.05	PSG3 200	29	0.03	PSG6 100R	33	0.03
80	12	0.08	PSG2 140	24	0.04	PSG3 240	34	0.03	PSG6 140R	30	0.03
100	14	0.07	PSG2 160	27	0.04	PSG6 100	15	0.07	PSG6 160R	29	0.03
120	17	0.06	PSG2 200	31	0.03	PSG6 140	18	0.06	PSG6 200R	26	0.04
140	20	0.05	PSG2 240	36	0.03	PSG6 160	19	0.05			
160	23	0.04	PSG3 100	18	0.05	PSG6 180	21	0.05	–	–	–
190	27	0.04	PSG3 140	23	0.04	PSG6 200	22	0.05	–	–	–
240	34	0.03	PSG3 160	25	0.04	PSG6 240	25	0.04	–	–	–

1. Table values are calculated based on the sum of the R-values of the component parts of the GCT panels and include analysis of the conductance of the ties running through the EPS core.
2. The R-values are calculated based on *ASHRAE 90.1*.

Thermal Characteristics with R values per Component Type

Construction - Foundations

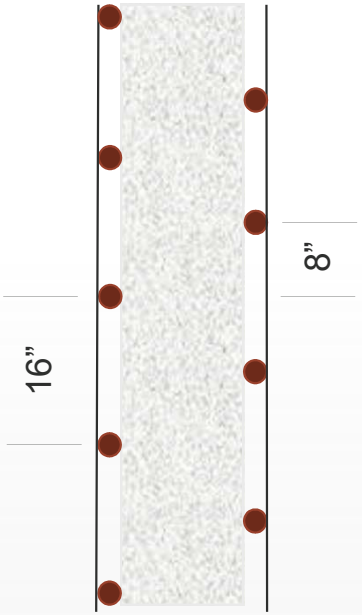
The panels are installed over a reinforced concrete foundation slab or connection beam supported on piles. The foundation size and characteristics should be determined by applying conventional calculations based upon the analysis of the soil by a qualified professional.

Beam over piles

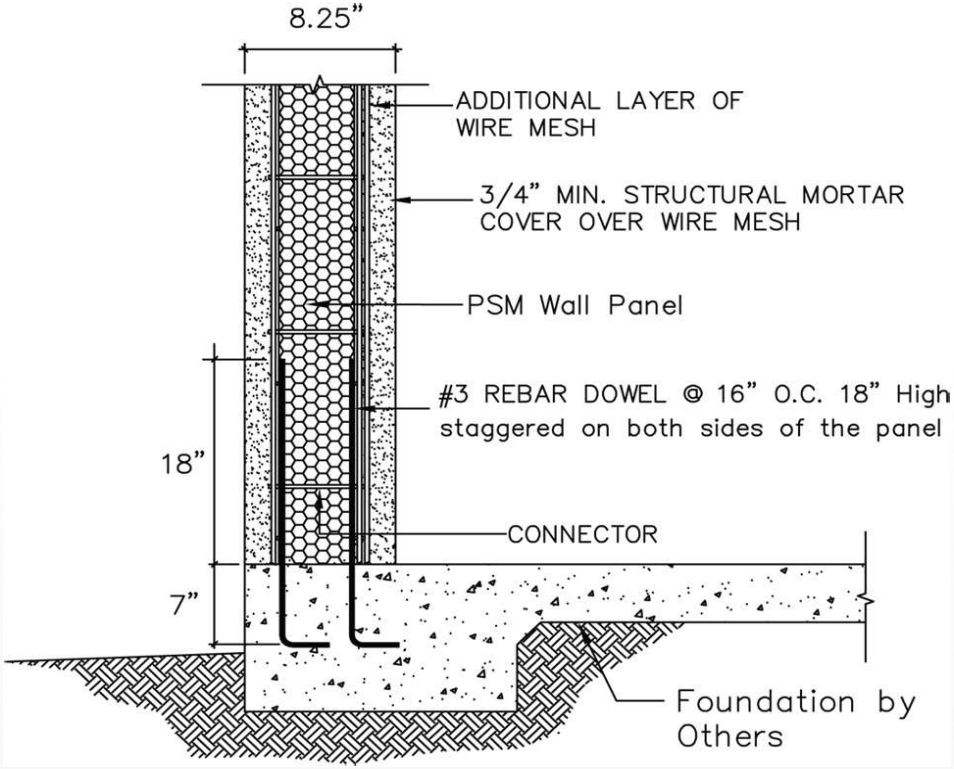
Foundation Slab

Construction - Foundation Detail

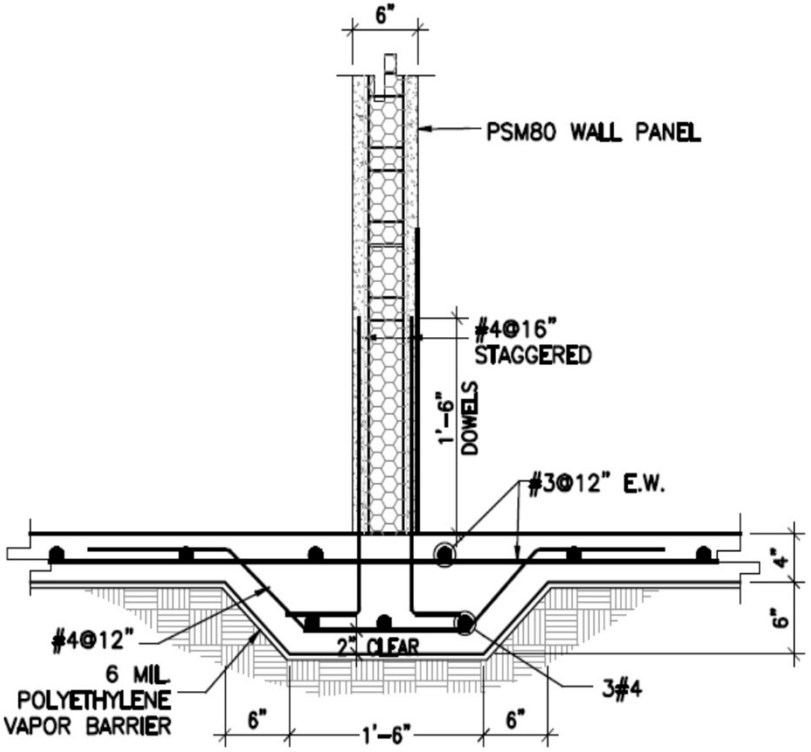
Dowels Distribution

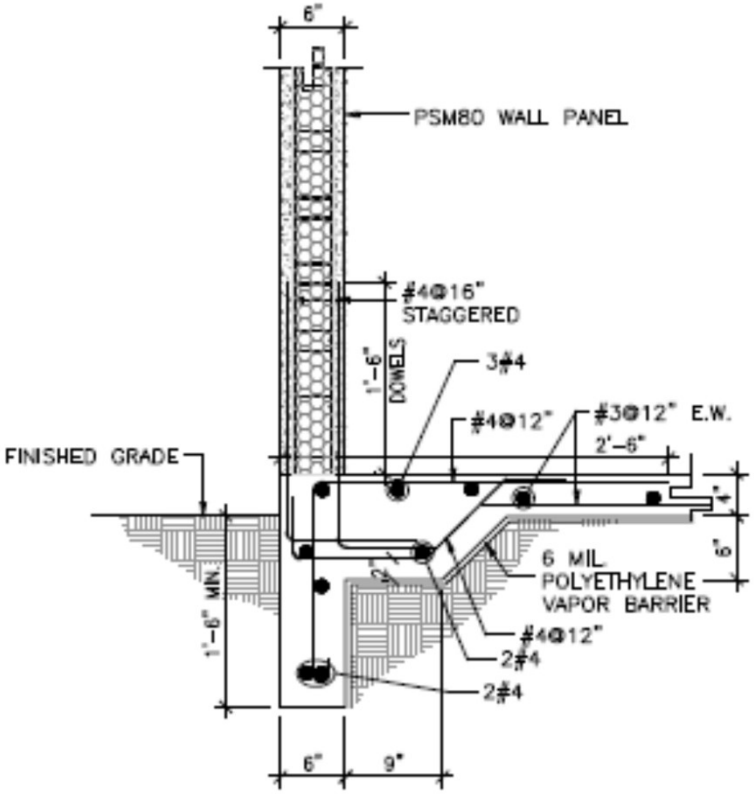


Typical Anchor



Cosntruction – More Foundation Detail

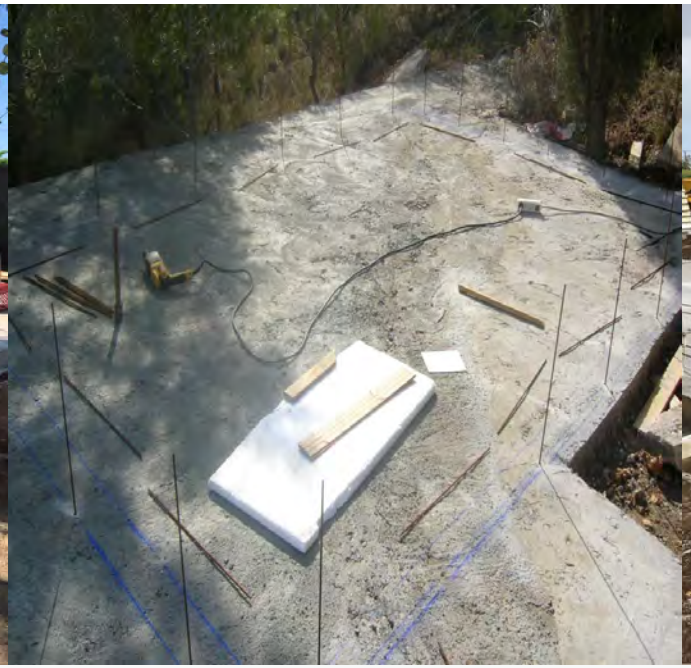




Wall Components Layout

The anchor rebars can be placed at the time of pouring the concrete, or after, in which case the location of the walls will be carefully laid out on the surface of the slab, outlining the lines and corners.

INSTALLATION OF ANCHOR REBARS



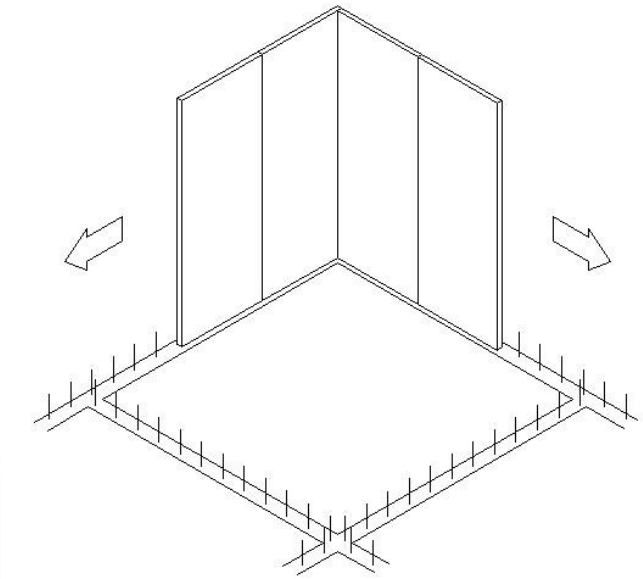
ANCHORING REBAR INSTALLATIONS OPTIONS

INSTALLATION OF ANCHORING REBARS PRIOR TO CONCRETE POURING

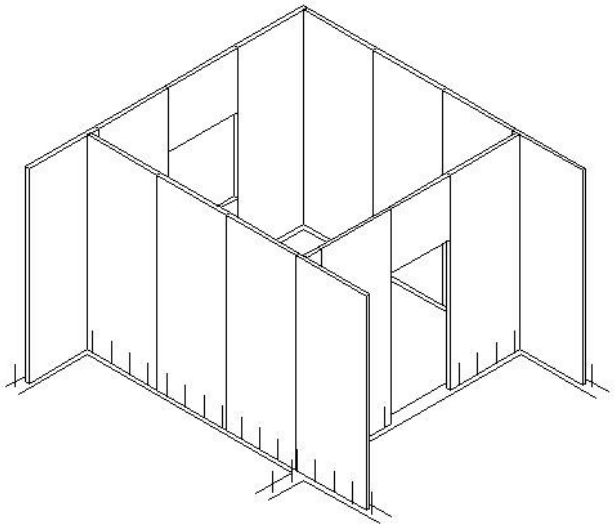
INSTALLATION OF ANCHORING REBARS AFTER THE CONCRETE POURING

SCIPs with ANCHORING REBAR

Assembly of wall component (First Option)

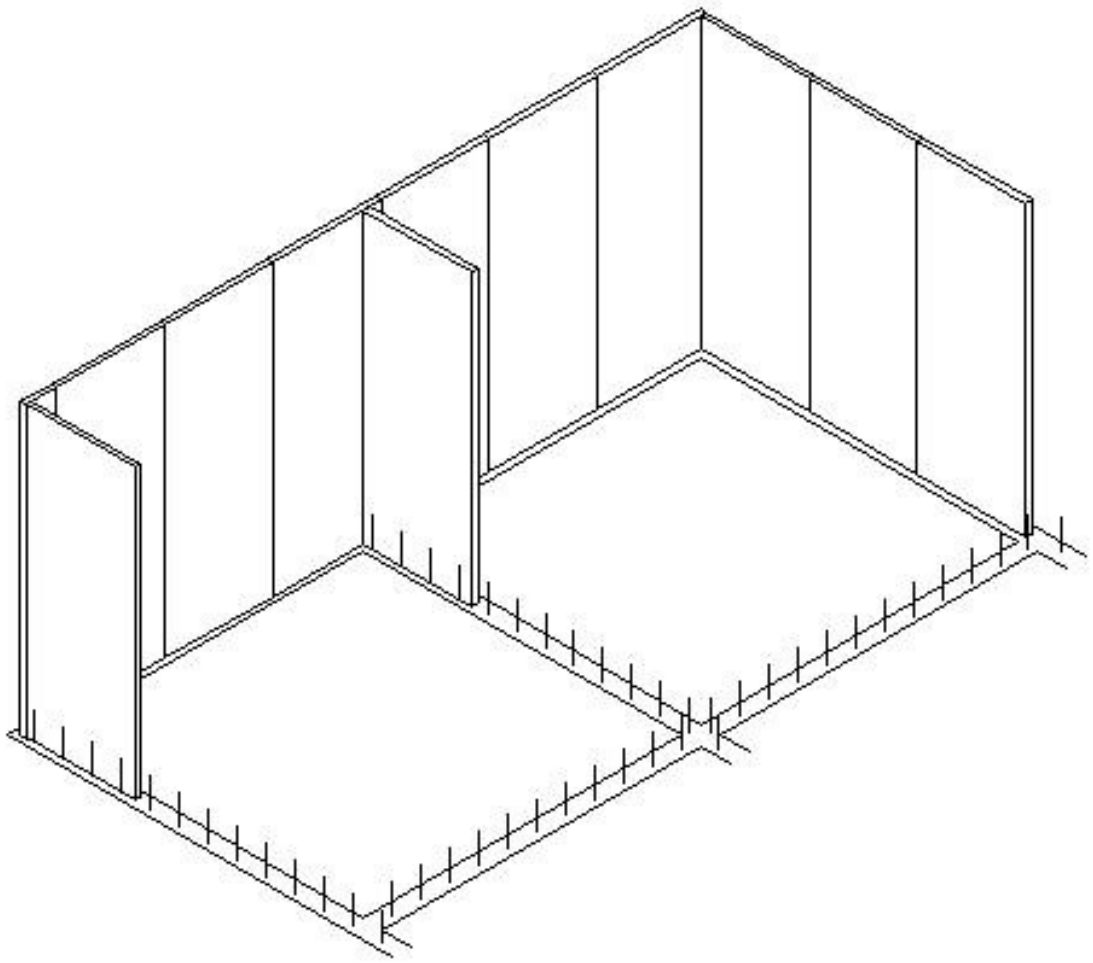


Initiate at a corner point and flow in both directions, being careful with maintaining the proper corners and angles.



If you follow this method, you shoud enclose romos or áreas before proceeding to extend the assemblying of panels.

Assembly of Wall Component



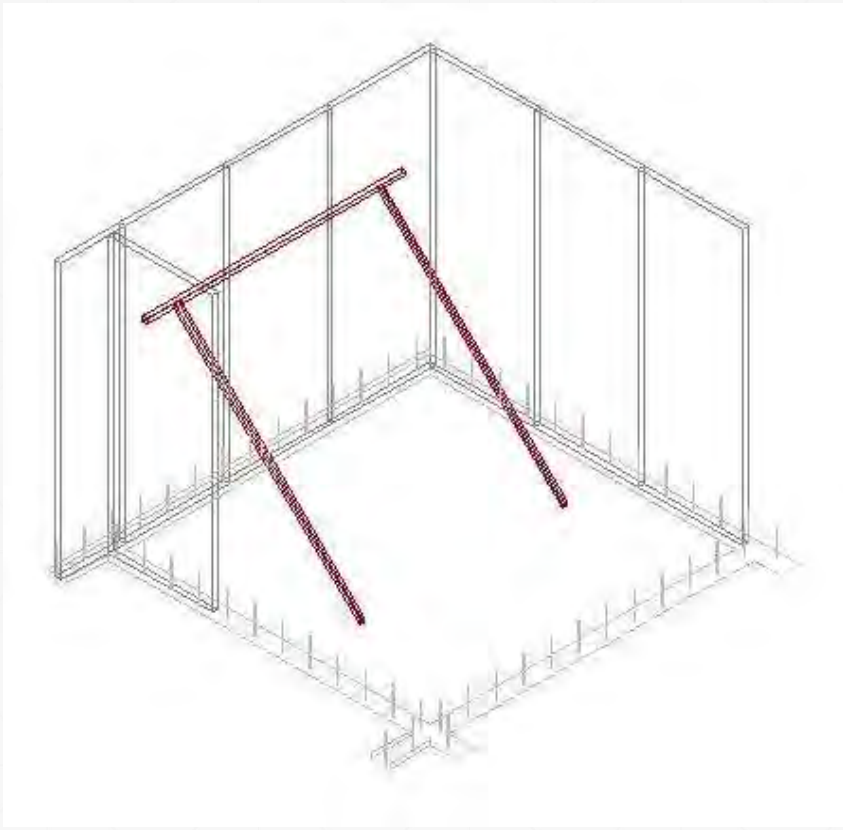
2. SECOND OPTION:
When the designed walls length are short, you may begin working on a wall, and simply install the transverse component at the corners or points of intersection of the walls.

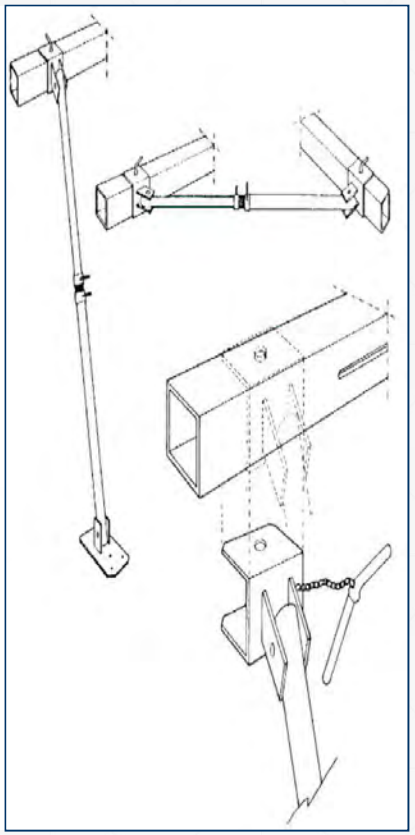
Cutting The Panel Section

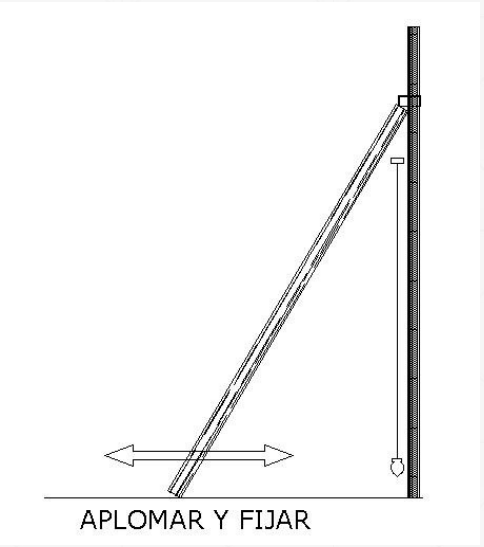
The components sections can also be preassembled and installed together after connecting several to form one bigger piece.

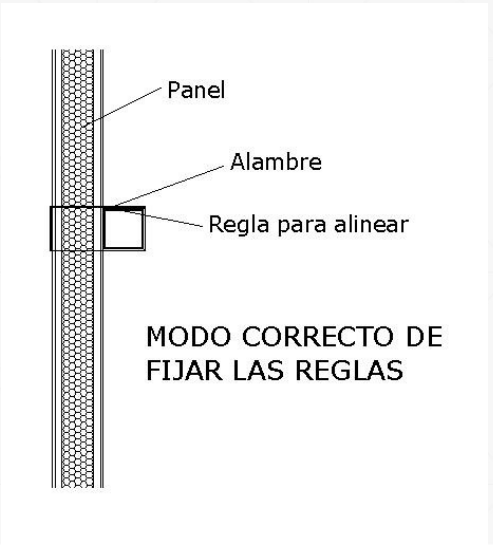
Assembly and Alignment of Panels

ALIGN AND PLUMB



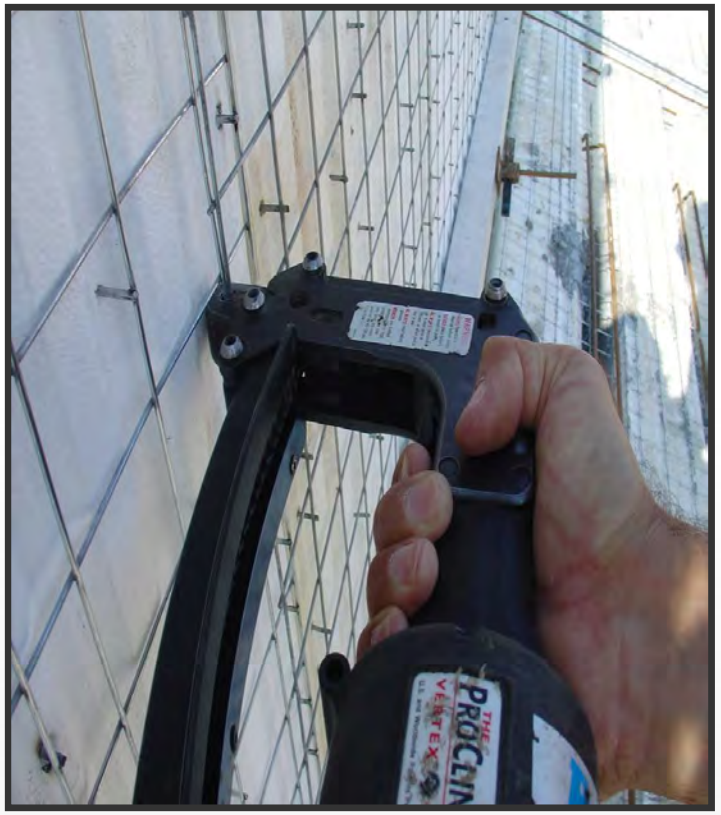




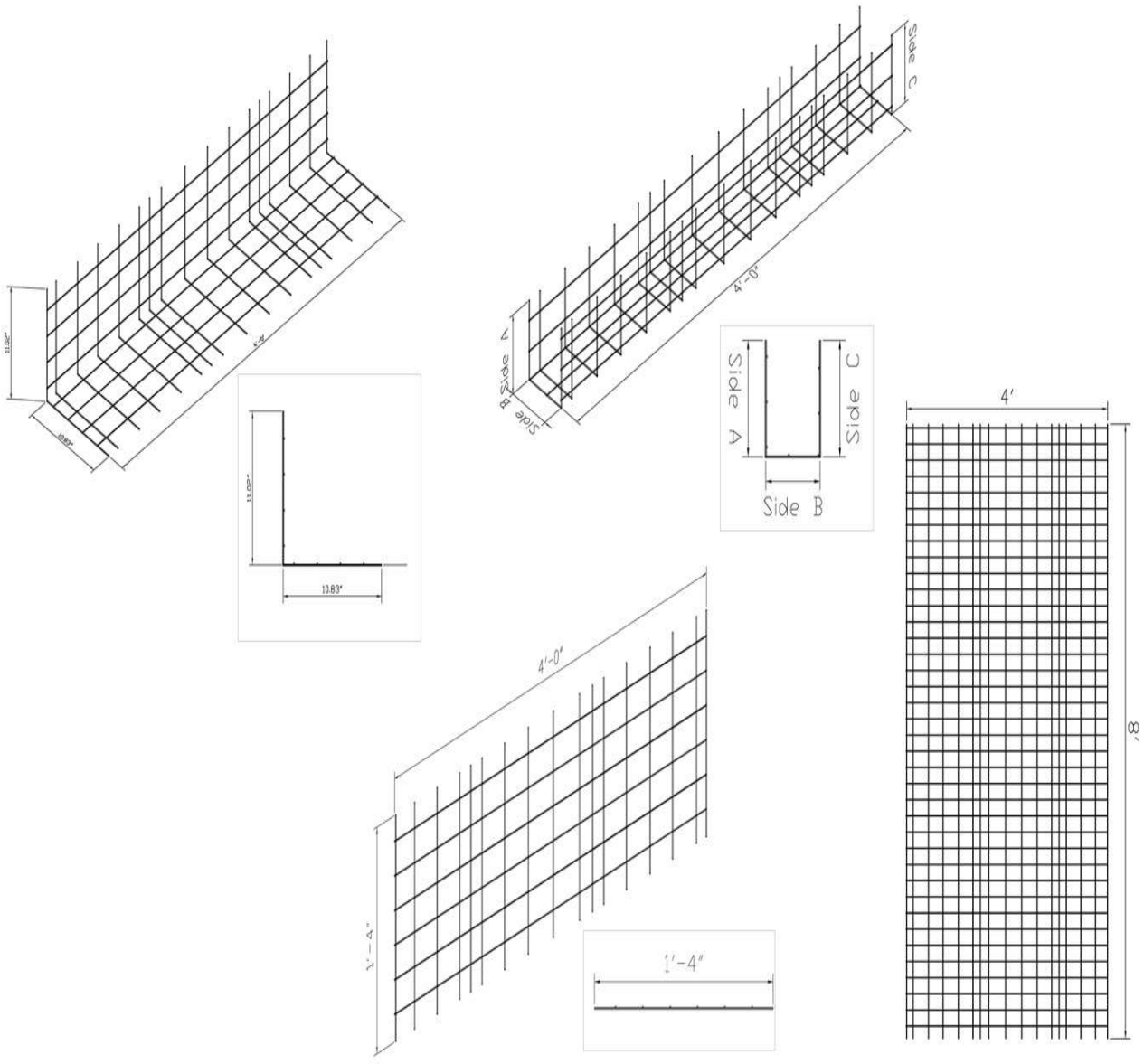


Place the bracing, erection, and alignment from the inside out.

Joining of Panels



Joinig of Panels Equipments



Accesory Mesh for Reinforcement and Connections

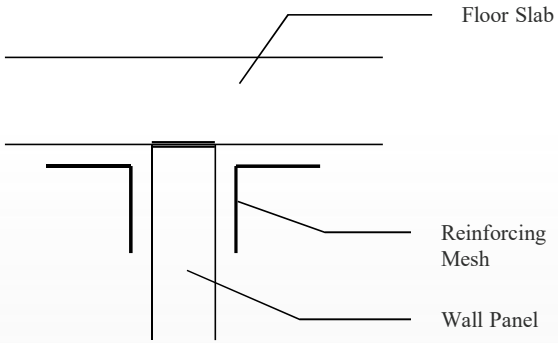
RG1 - Corner Mesh

RG2 - Flat Mesh

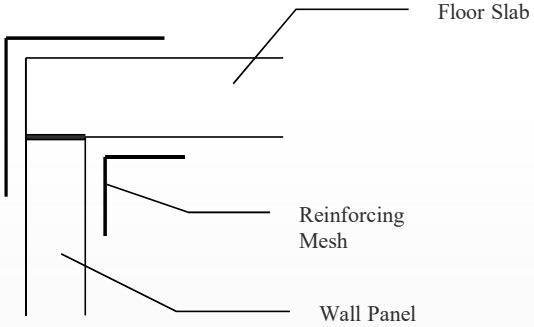
RGU - U Mesh

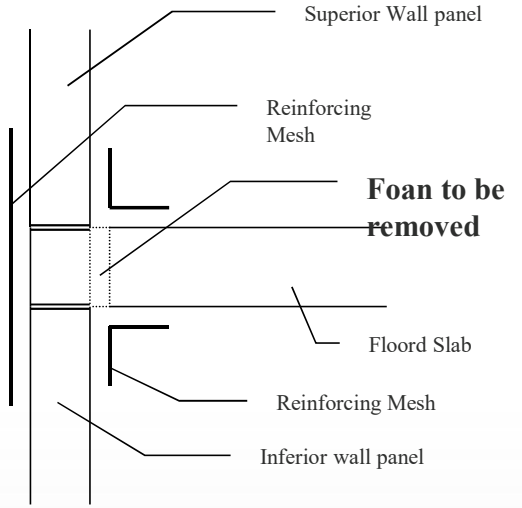
Mounting of Floor / Roof Slab Component

Continuous Roof Slab

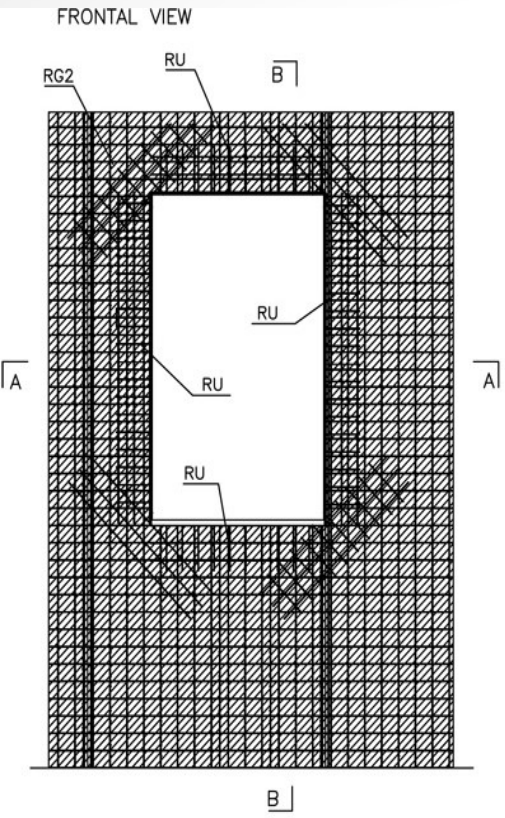


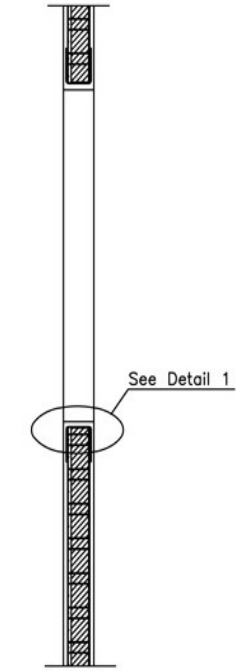
Roof to wall Slab



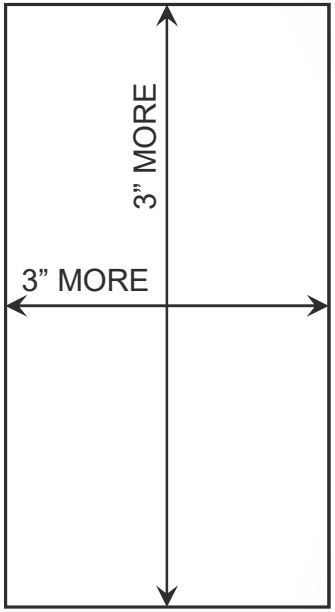


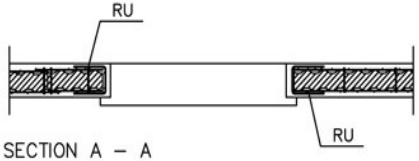
To maintaion the structural integrity from the first floor to the second floor, the concrete must be continual. To accomplish this, a section of the foam of the second floor slab must be removed.



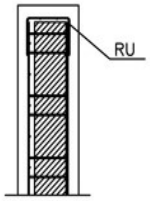


SECTION B – B





SECTION A – A



DETAIL 1

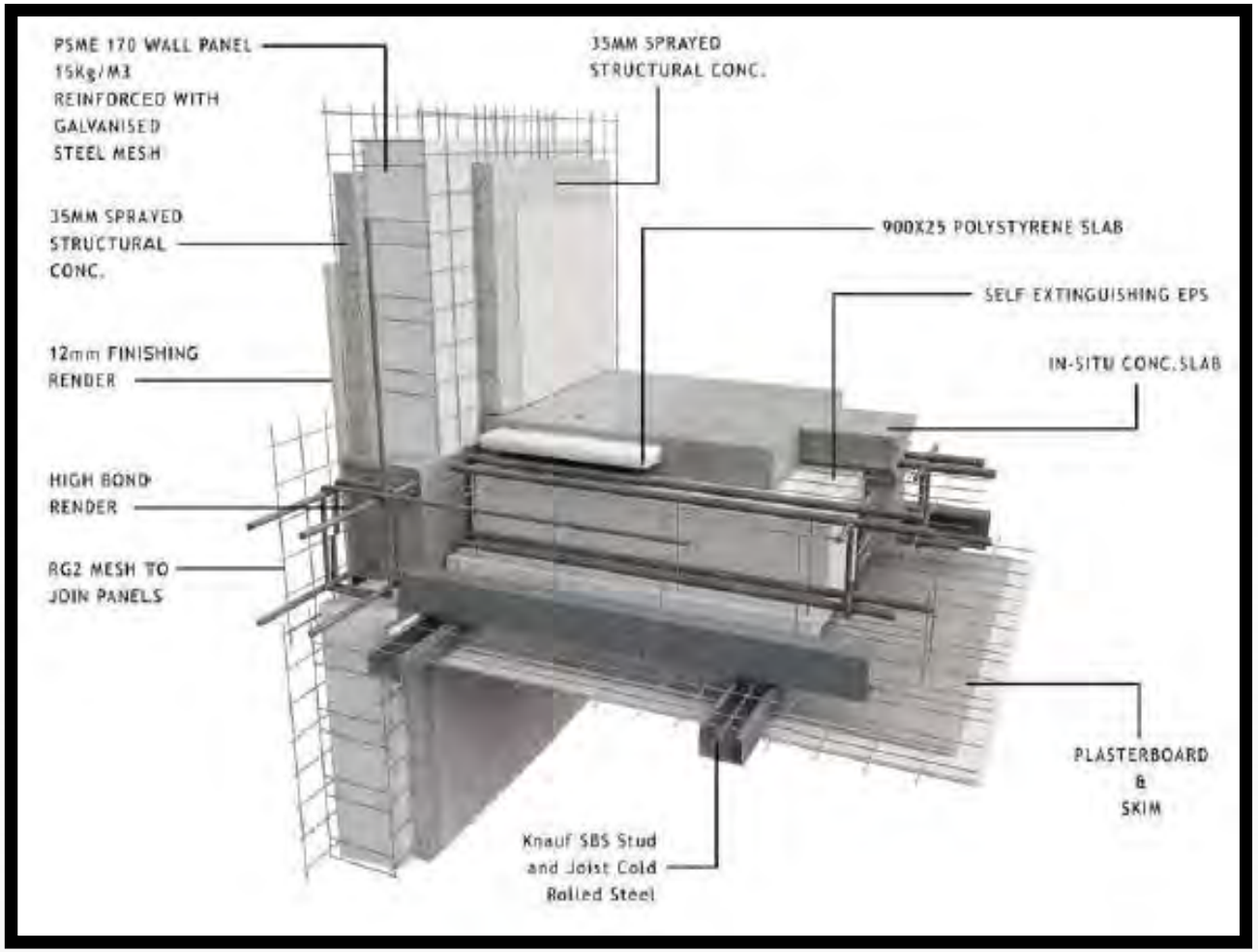
Windows Details

WHEN CUTTING WINDOWS AND DOORS OPENINGS MAKE CUTS 3” WIDER IN BOTH DIRECTION

Easy and fast Instalation

SCIP'S will adjust to any shape before are covered with high strength mortar.

PSG Joist Slab Connection to a Wall Component

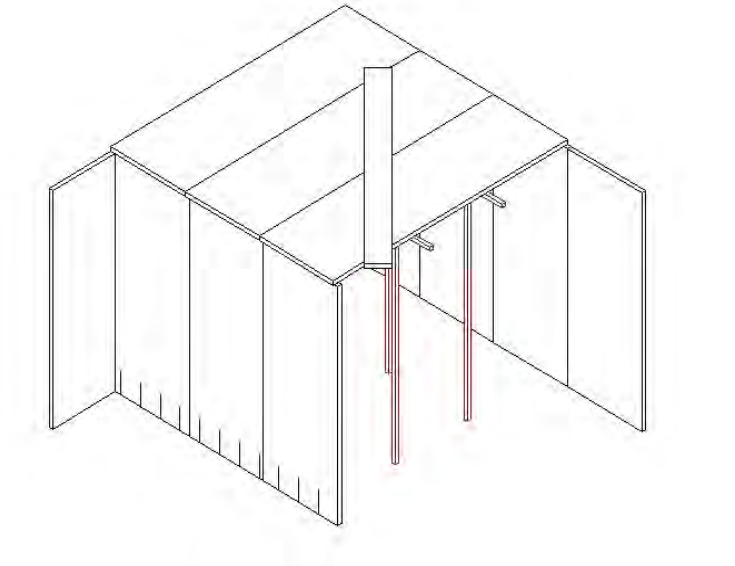


Installation of Floor/ Roof Slabs Components

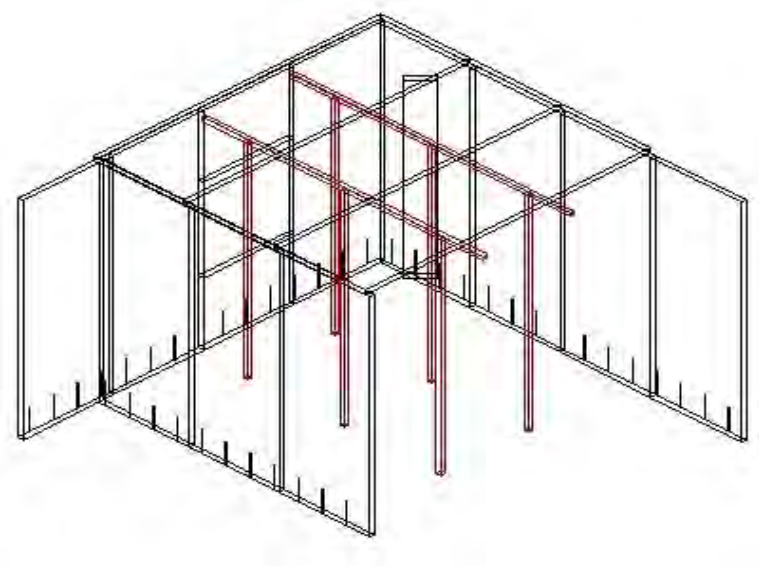
Installation of Floor/Slab

Place posts and boards at 4 ft intervals

Camber can be provided in long span slabs. Shall be specified by the engineer or designer.



Walk exclusively on wooden bridge boards laying on the posts

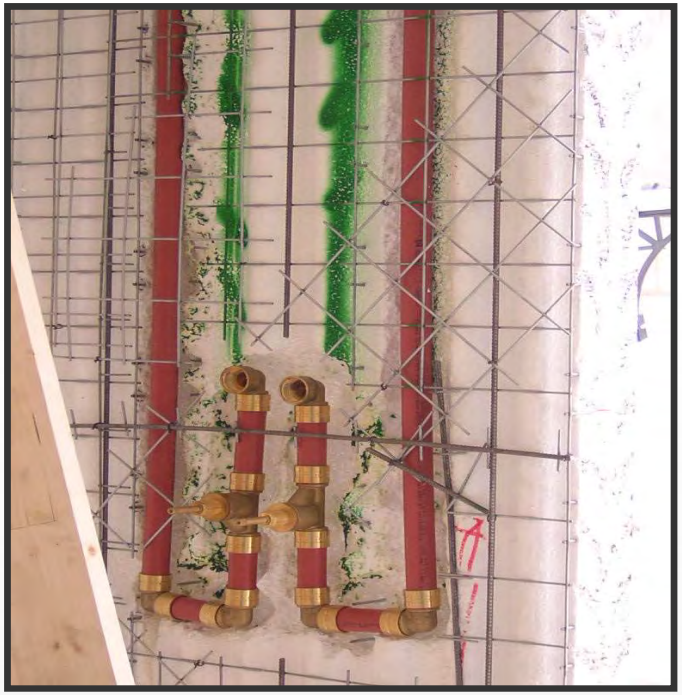


Floor and Roof Slab Support System

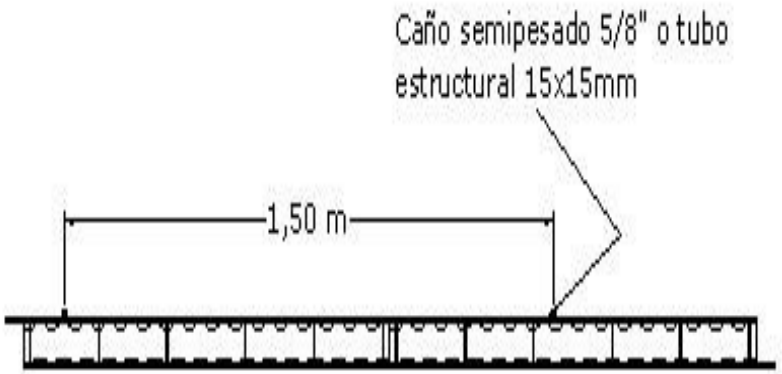
Plumbing & Electric Installations

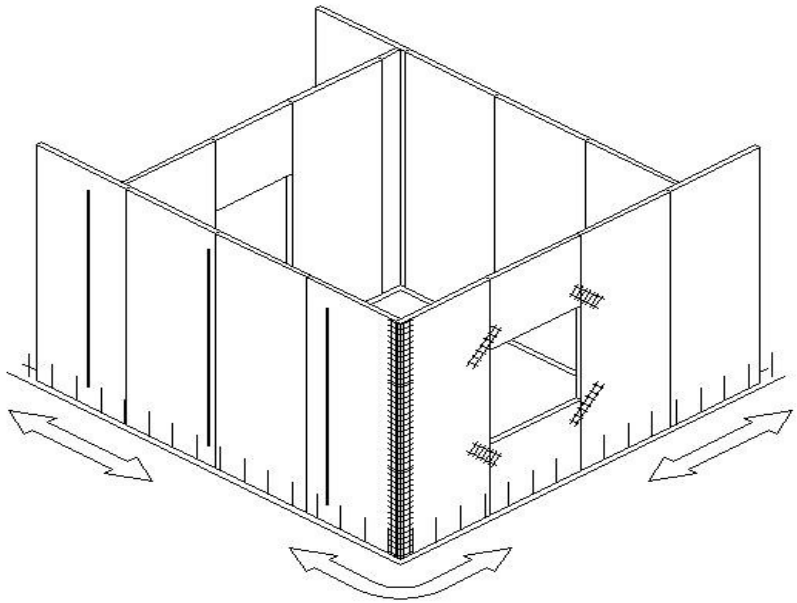
THE EPS IS MELTED WITH A HEAT GUN OR EQUIVALENT TO OPEN CHANNELS. THE MESH IS CUT WHERE NECESSARY FOR INSTALLATION, AND A REINFORCING FLAT MESH IS PLACED OVER AREA.

Plumbing And Electric Installations



Installation of Screeds(Guides) for Concrete and Mortar Placement





The screeds will be placed with a 4.5 ft separation, taking into account the alignment and squareness of the wall surface and plastring cut tool length.

The installation of the roof support system on the interior, allows for uninterrupted shotcreting on the exterior. Remember to install all required mesh prior to the placing of your wall supports.

Mortar Application Guidelines

Mortar Application

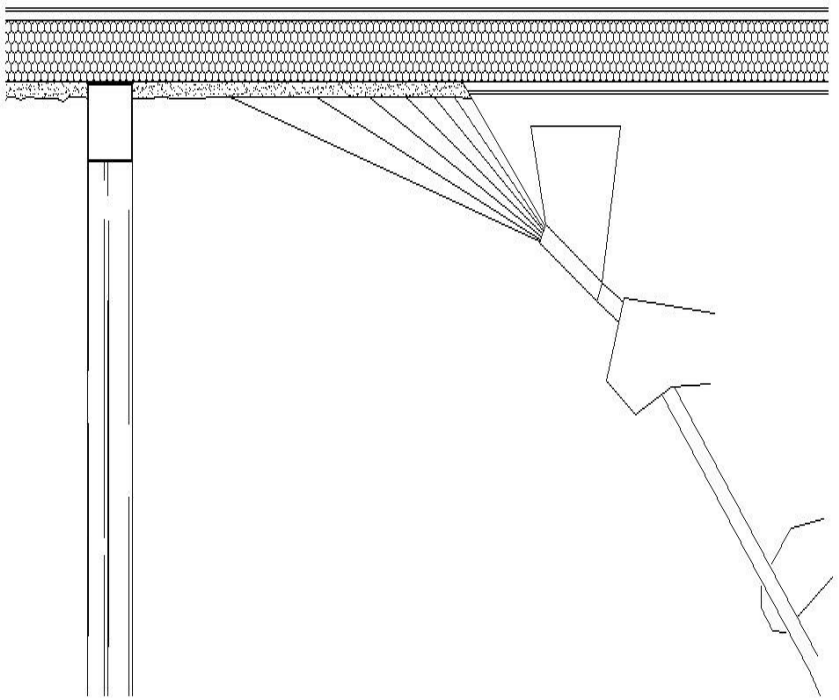
Removal of Screed Guides

- The correct method for the removal of the metal screed guides is as follows: :
- 1) The metal screeds are removed IMMEDIATELY after the second layer of concrete (or the first if the only requirement is for a structural layer).
- 2) For the structural coat, fill with concrete to within 1 inch on both sides of the metal screed guide. Once the guide is removed, finish the wall with your architectural layer, including the spaces previously not filled in.

Spraying & Pouring of Concrete

- STEPS TO BE FOLLOWED FOR ROOF PANELS AND SLAB PANELS:

1. Apply first layer of structural mortar to the walls, both sides.
2. Apply structural mortar to the bottom face of roof panel (**between shoring supports**)
2. Pour the concrete over floor or roof slab with a thickness of no less than 2 inches.
3. While concrete cures, apply finishing mortar to the walls.
4. Remove roof support systems in no less than 7 days unless a special concrete mix design has been specified by designer to achive early compression capacity.
5. Finish the bottom surface of roof or slab panel.



Mortar Application

Structural and Finish Mortars

Structural and Finish Mortars

- The Structural Mortar will be applied to 3/4 ”on the mesh, on both surfaces.
- You can achieve 3/4 ”with the guide of a 1/2” sch 40 tube
- A mechanical setting will be left, for the perfect completion of the finishing mortar
- Carmelo Mix Mortar will be applied at 3/8 ”approx. on the structural mortar, on both surfaces

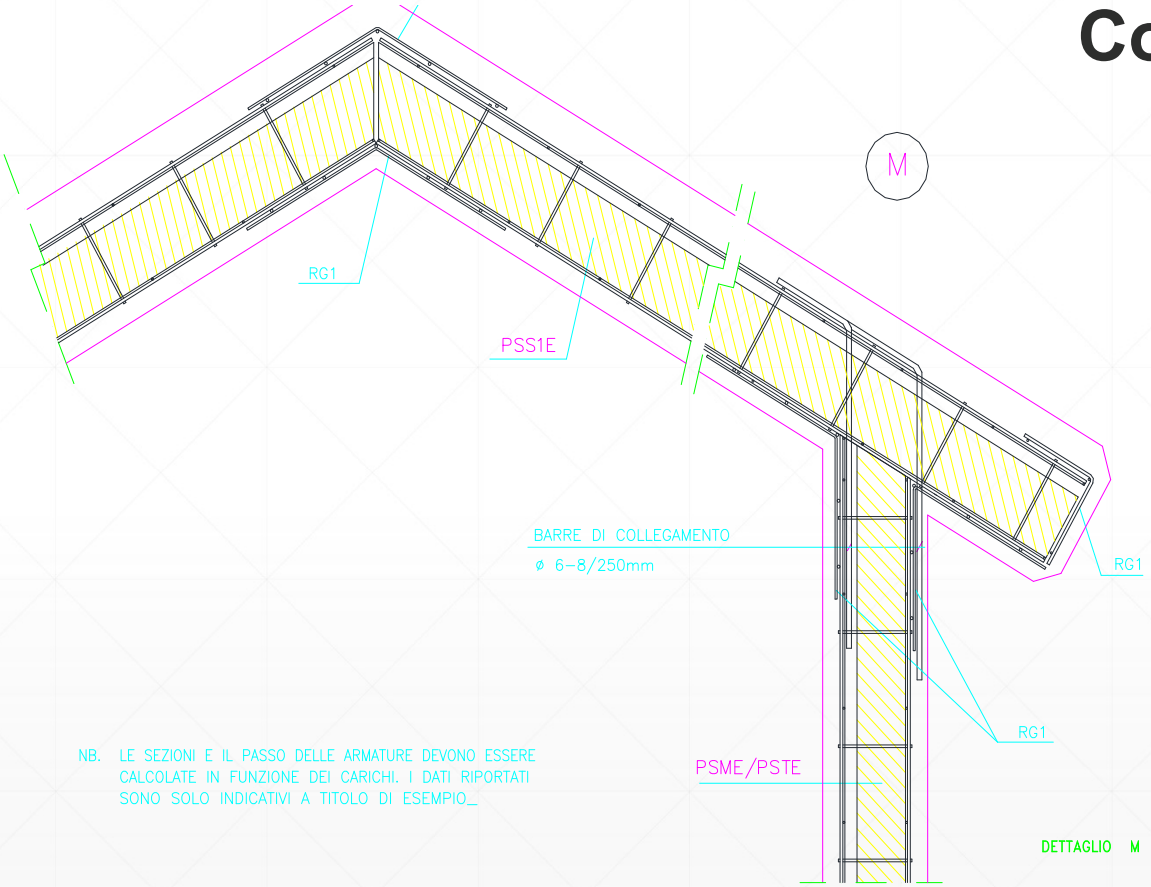
Mortar Application Machines

- Mono Mix

- Duo Mix

Concrete Placement

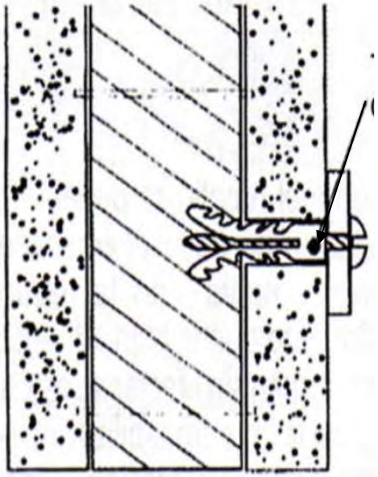
PSM Roof/Slab to Wall Components

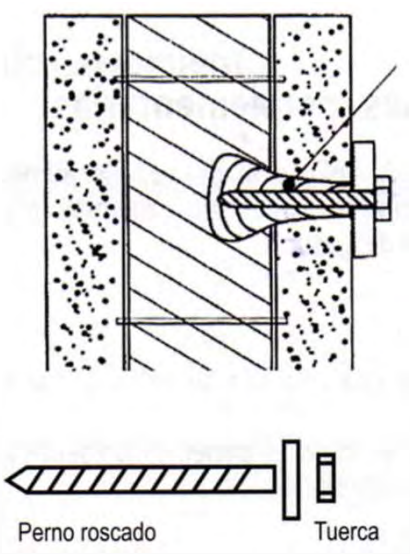


NB. LE SEZIONI E IL PASSO DELLE ARMATURE DEVONO ESSERE CALCOLATE IN FUNZIONE DEI CARICHI. I DATI RIPORTATI SONO SOLO INDICATIVI A TITOLO DI ESEMPIO_

Roof/Slab Components

Mounting of Objects to SCIP Walls





A. Light Objects: May use pins, or screws of around 25 mm

B. Heavy Objects: Screws or plastic pinsof 45 mm are usually recommended.

C. Very Heavy Objects: May use metal pins, or a threaded pin fastened with epoxy resin.

332 ft² House – Built in 20 Days

Las Masias Hill – 196 Unit Project

Residencial House

Industrial Building

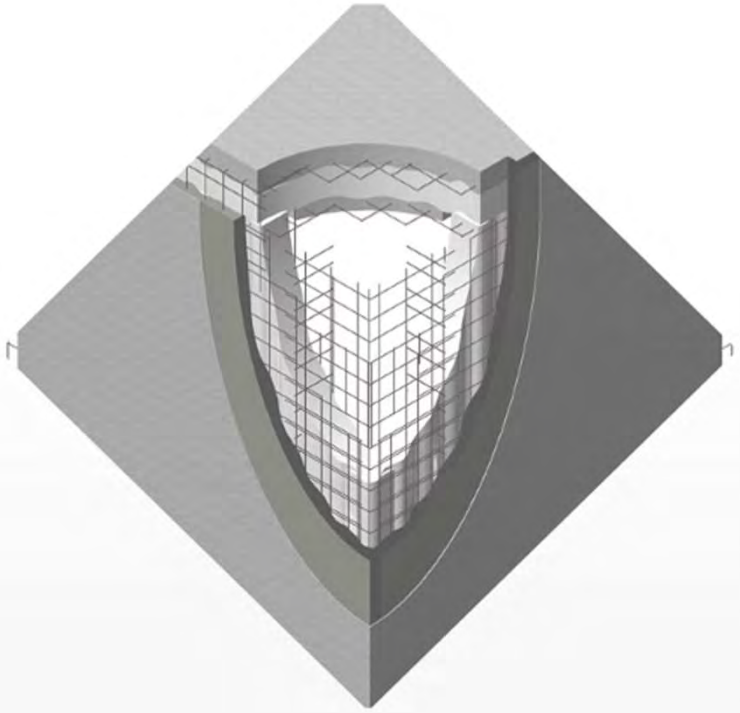



Industrial Building

Commercial Bldg – Chili's Aguadilla

Commercial Kiosks - Arroyo Water Front

Thanks for Your Time



"Dedicated to Excellence...
People Serving People"

March 2, 2020

Dear Triumph Gulf Coast Board:

The City of Panama City would like to submit this letter of support for funding to establish an advanced STEM and Entrepreneurship lab at AMIkids Panama City Marine Institute. We believe this project, STEM and Business Entrepreneurship Labs at the Maritime Academy, will greatly enhance student engagement as well as educational and career opportunities for students within our community.

Amid planned expansion efforts in Fall of 2018, Panama City Marine Institute was heavily damaged by Hurricane Michael. In efforts to recuperate from the storm and continue their vision of innovative programming opportunities for our adolescents, Panama City Marine Institute is requesting support to equip an unmanned system engineering lab, mechanical engineering lab, computer engineering lab, virtual reality lab, and business entrepreneur lab.

This project has unique potential for impact as this site hosts classes for both Panama City Marine Institute and North Bay Haven charter school. In addition to enriching the educational experiences of our youth, the focus of STEM will too enhance future employment opportunities for these soon-to-be adults within the workforce. Economic sectors such as energy, healthcare, transportation and manufacturing need high quality workers for high paying jobs of the future and we want our youth to have the opportunity to be leaders within these industries. This STEM and Entrepreneurship lab will enable that opportunity. In addition, with increased MQ-9 and F35A missions scheduled to come to Tyndall AFB, preparing our students for emerging career fields supports growth of these industries in our area and to all of Northwest Florida.

We thank you for your consideration to support the STEM and Business Entrepreneurship Labs at the Maritime Academy and all your continued support of our community. Please reach out to us with any questions or if we may be of further assistance.

Respectfully,

Mark McQueen
City Manager
City of Panama City

EMBRY-RIDDLE Aeronautical University
DAYTONA BEACH, FLORIDA

Gaetz Aerospace Institute

embryriddle.edu

"To the Triumph Gulf Coast Committee;

For the past year, AMIkids Panama City Marine Institute has implemented the Embry-Riddle Aeronautical University, Gaetz Aerospace Institute, at their school. We sponsor the program, train the instructional staff, provide and oversee curricula, and audit the implementation of the courses to ensure that it meets our standards. In addition, students that meet all of the requirements are awarded concurrent college credit from Embry-Riddle Aeronautical University. The credits earned are transferable to our four-year Unmanned Systems program where students can complete the degree at our campus. We are a grant-funded program through the Department of Education. If our funding is renewed again this year, Embry-Riddle is prepared to supply the same support again when AMIkids Panama City Marine Institute transitions to a Charter School model.

We are well aware of the impact that the oil spill had on the Gulf Coast Region and the efforts of the Triumph Gulf Coast Board to create a more diverse and resilient economy that includes emerging STEM careers such as Unmanned Systems. The Gaetz Aerospace Institute at Embry-Riddle Aeronautical University is committed to providing a high-quality education that prepares our Florida students for careers in the Aerospace Industry. We support the request by AMIkids Panama City Marine Institute for a grant to create a Maritime Academy with the Gaetz Aerospace Institute as a part of the course offerings.

Educationally yours,

Dr. Colleen Conklin
Executive Director of the Gaetz Aerospace Institute

Colleen Conklin, Ed. D., RPIC
Assistant Professor, Executive Director
Gaetz Aerospace Institute
1 Aerospace Boulevard
Daytona Beach, FL 32114-3900
386-226-6020
Walshcoc@erau.edu

Embry-Riddle Aeronautical University
Florida | Arizona | Worldwide

TechFarms®

June 11, 2020

Dear Ron;

Thanks for the opportunity to visit your facility recently and see what you're planning for the future. I was impressed with the work that you're doing to restore your facilities and prepare for the next chapter in AMIkids Panama City Marine Institute's long and successful history. I have always admired you and your staff's approach to alternative educational opportunities for at-risk kids and the programs that you have implemented over the years have helped many kids throughout our community.

I read your Triumph application for the proposed new charter school, AMIkids Maritime Academy. Your proposal to offer an alternative pathway consisting of industry certifications primarily in STEM-related areas is in line with both our community and our nation's needs. In addition to your UAS programs, the courses you propose in masonry and carpentry are timely as these skills are greatly needed as we rebuild Tyndall Air Force Base and the surrounding counties after Hurricane Michael.

I was involved in advising the consultants who developed the Northwest Florida FORWARD regional strategic plan and I believe your proposed charter school meets many of the plan's requirements and goals. Graduates would have the opportunity to continue their college education or join the workforce and fill positions throughout NW Florida.

In particular, your downtown waterfront location is ideally suited for the maritime programs you have identified, especially the environmental projects involving sea grass protection, oyster, scallop, and shoreline restoration.

TechFarms is a technology incubator here in Panama City Beach and for the past 5-years we have been involved in the development of both manned and unmanned drones. We are currently developing fully autonomous drones that will find both military and commercial applications. We would welcome the opportunity to assist AMIkids Maritime Academy students learn more about how to design and build UAS systems, and get hands-on experience building and testing a wide variety of electrical and mechanical systems.

Sincerely,

Steve Millaway
CEO, TechFarms
c: (850) 896-2871
e: smillaway@TechFarms.com

RELIANT SOUTH Construction Group

(850) 215-5540 Fax: (850) 215-5570
ReliantSouth.com

May 18, 2020

Ron Boyce
Executive Director
AMIkids Panama City Marine Institute
PO Box 268
Panama City, FL 32402

Dear Ron:

Excited about the possibility of assisting with your proposed STEM and Business Entrepreneurship Lab program and the expansion of your Construction classes.

PCMI has a marvelous track record …. In fact, it was your successful program that I referenced in my pursuit of Bay District Schools adding their own construction training programs. For this reason, PCMI should take pride in being instrumental in the Construction Academies that BDS launched at Rutherford and Arnold High Schools.

Your training programs have been and will continue to be the key to breaking the cycle of generational poverty. By opening the eyes of a young person and sharing career possibilities this training will hopefully be the key also to generational prosperity.

Employers are starved for more skilled workers. Hence, I am confident your graduates will continue to have little problem whatsoever finding good and stable employment.

We would be honored to assist in any way desired as we have in the past. As a baseline, we are happy to assist with ….

- Mentoring of program participants
- Tours of worksites
- Consideration for employment of qualified candidates
- Assistance with program design and content to ensure applicability to current trends

Please consider this letter as an extension of our support to AMIkids Panama City Marine Institute vocational education and job placement program. ReliantSouth Construction is committed to providing additional services and leveraging resources to ensure the program produces positive outcomes for the eligible youth in our community as much as possible.

Sincerely,

Richard M. Dodd, P.E.
Dodd@ReliantSouth.com
President