

ACE Mentorship Project

2019-2020



The Construction Center

Chattanooga, TN

A Career, Training, and Business Hub
to Advance the Construction Industry

Presented By:

AGC OF EAST TENNESSEE

A CHAPTER OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



Background

The construction industry is amid a growing workforce crisis. With an average age of 43 for an industry craftsman (aka tradesman) and a rapid decline in the number and quality of new employees coming into the industry, there is expected to be a workforce demand of 1.4 million craftsmen in construction by the year 2023. This lack of labor will dramatically increase the cost of new development for housing, retail, schools, hospitals, roads, and the gamut of residential or commercial building and infrastructure projects.

In Tennessee, the number of people with a bachelor's degree is less than 26%. For those who do get a bachelor's degree, the average college debt is \$34K and continues to climb. The average salary of a craftsman at \$9,600 more than a recent college graduate, yet many high school students are unaware that the construction industry offers lucrative and rewarding career pathways as an alternative to college.

In addition, new technology and efficiencies are rapidly changing the business of construction. With the introduction of automated and robotic equipment, prefab processes, new digital capabilities, and improved safety technology, companies that are embracing innovation are poised for future success, and in the Chattanooga area, exposure to new technology tools is greatly needed for regional businesses, educators and students.

Vision

To mitigate these issues and to support existing workforce development efforts in the construction industry, the Associated General Contractors of East Tennessee (AGC) is exploring the concept of the The Construction Center, a comprehensive hub for career awareness and guidance, training and continuing education, and business support for the construction industry.

The goals of The Construction Center are to:

- **improve quality and quantity of construction workforce;**
- **create more awareness of career paths and connect workers with opportunities in the industry;**
- **enhance the perception of construction as a career;**
- **and showcase technology and innovation in the construction industry.**

We believe that The Construction Center will be a collision center and connection point for business leaders, educators, students and candidates, improving training and curriculum, forging stronger networking opportunities, and ultimately strengthening the regional industry.

Project Scope

The location of The Construction Center will be on a 5-acre site that includes the former Mary Ann Garber Elementary School, located at 2225 Roanoke in Chattanooga, TN. The property is owned by the Hamilton County Department of Education and the building is currently being used as a storage facility for teacher supplies and books.

Design Elements

The design of the Center is intended to help enhance the perception of construction industry and entice more people towards careers in the industry. As such, the design should be vastly different than typical training facilities for the trades. Since this is a hub for the construction industry, we would like for the design to be industrial, cool, raw and if possible, use some of the tools of the trade in unexpected ways for fixtures and design elements. Workers in the construction industry are drawn to the outdoors, so light and windows are important. We challenge the designer to be creative in their use of construction materials.

Neighborhood

The property is located in a mixed use area that with large and active residential community, as well as nearby industrial and manufacturing uses. Next to the Construction Center site is the Harriett Tubman site, a sizable vacant tract that was formerly public housing and razed for new use. The site is slated for a new industrial development project that would transform the neighborhood and likely serve



as a catalyst for more development in the area. A new elementary school, Hardy Elementary, is across the street from the property and a mile away a concerted neighborhood redevelopment initiative, called The Glass Street Initiative, is underway.

The Construction Center Facility

The existing building was constructed in 1954 and contains asbestos, lead paint, and many structural issues. The northern wing of the building is beyond repair and must be demolished. While we believe that most of the remaining building will be a tear down, we would like to see some of the existing elements incorporated into the new design to remain a part of the community fabric, particularly the window frontage and the current gymnasium building.

The Construction Center will have 35,000-sf of space and include:

Vocational School (10,000-sf): A vocational high school for the construction trades will cater to 11th and 12th grade students. Students will attend this school for core school curriculum for a half-day and spend the other half of the day in the Training Center. The school will allow for up to 75 students in each grade for a total of 6 classrooms and 150 students combined. A student lounge area should also be included.



The Training Center (15,000-sf). The Training Center will be a warehouse-style facility that offers experiential learning opportunities for high school students and adults interested in a career as a craft professional. The facility should include garage doors to allow for heavy equipment and large scale projects, and include a 3,000-sf section for hands-on safety training. We would like this space to include mobile walls depicting information about the trades that can be moved around to allow for events and larger learning groups.

The Business and Career Center (10,000-sf): This area will cater to industry professionals and house the AGC office (space for 5 offices), a blueprint shop, a technology center for equipment and software demonstrations (2,000-sf), conference room to hold up to 25 people, lounge/kitchen/co-working space, storage area, and flex event space that can hold up to 200 people. This area will also include a career center to create awareness and to guide students and prospective candidates through career pathway sin construction. The Career Center will [partner with Build Your Future (BYF), a national campaign to create awareness of construction career paths, to information in a visually compelling way. This will be BYF's first time to bring their online assets on their website into a 3D, physical spectrum. Our intent is to create a museum-like experience with BYF graphics and information ([located at byf.org](http://byf.org)) with the ultimate goal of connecting prospects to current regional job openings, mentorship programs, and work-based learning and apprenticeships.

The areas could be separate but connected but should all share the same aesthetic. The Center will require parking for minimum of 75 cars. The new design should space for expansion.

The Project

Develop a facility plan to achieve the outlined goals and needs that includes a budget, floor plan(s), exterior elevations and other drawings or documents to convey the project clearly.

Design Elements


- Potential reuse of existing buildings with incorporation of new facilities
- Sustainability and Green Infrastructure
- Transportation and Connectivity
- Opens and Public Spaces
- Landscape Elements

Budget

Students must develop and present a budget with a cap of \$6 million.

Requirements

1. Design should include floor plan(s) and exterior elevations, and may include computer modeling/rendering and/or actual scale model.
2. Site Plan and renderings to clearly depict the character of the development.
3. Project Display Boards and Model Criteria:
 - a. Contains enough information to stand independently
 - b. Students are able to answer questions about the project
 - c. Display board is professionally organized and aesthetically pleasing
 - d. Scale model is professional in appearance
 - e. Students are able to answer questions about the construction of the model
 - f. 3D model shows required spaces with furnishings to scale
 - g. Students are able to answer questions about the development
4. Project Presentation Criteria:
 - a. Presentation file must be PDF slides or PowerPoint
 - b. Dress professionally
 - c. Come prepared and rehearsed
 - d. Do not read from slides
 - e. Presentation is well organized, easy to read, and professional in appearance
 - f. Discuss team structure

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- g. Address zoning requirements (or lack of) and site constraints
 - h. Discuss team design of site and community assets
 - i. Discuss ACE experience
 - j. Limit presentation to between 6 and 8 minutes