

## 2.4 PROJECT NARRATIVE AND DOCUMENTATION

### **PROJECT DESCRIPTION:**

The overall scope of this project contains three major components; the demolition of two residences halls on site, a new building for the School of Concrete and Construction Management programs, and the expansion of the Satellite Chiller Plant to accommodate the new building and future development in this area of campus. The project site is located along the existing south edge of the campus at the corner of Alumni Drive and Blue Raider Drive.

### **DEMOLITION OF EZELL AND ABERNATHY HOUSING UNITS:**

Ezell and Abernathy are two existing, three-story residence halls that shall be demolished as part of this project. An important aspect of the demolition includes an effort to save and protect select trees around the existing buildings. Utilities serving these halls will also be part of the demolition.

### **SCHOOL OF CONCRETE AND CONSTRUCTION MANAGEMENT:**

Located on the north side of the site, the new two-story, 54,000 square foot, School of Concrete and Construction Management (SCCM) building is being designed to serve the needs of the School of Concrete and Construction Management department as well as providing classrooms for the general student body. The building will terminate a future East Quad extension with the main entrance/lobby that interconnects the two levels facing the quadrangle. The general design of the building has a two-story bar running east to west with a one-story section extending to the south separating the two major outdoor elements – the working yard and courtyard. The two-story bar's first floor will house the laboratory spaces to the west, and the department office, conference center, multi-media showcase classroom to the east. The second floor includes a distributed mix of classrooms, computer labs, individual faculty offices, graduate/tutor center, and collaborative/gathering areas. The one-story bar that extends south is a single loaded corridor that includes a portion of the laboratory spaces, a covered amphitheater space, and the 200-seat lecture hall. We envision this section of the building having the possibility to connect to a future building to the south of the site and/or a future second floor. The corridor would serve as a backdrop to the east courtyard. The two bars intersect at a shared lobby, service core, and communicating staircase. There are outdoor areas designed around the building that are essential to the success of this project. A working yard on the west side, will provide an area where students can extend their work and projects outside of confines of the laboratories and classrooms. It will include material storage, trailer parking, a concrete batch plant, dumpsters, and space for constructing larger projects. The covered amphitheater has direct connection to the student projects lab and working yard. Here students will observe particular construction methods, or product demonstrations. In addition to the working yard, the building also includes a courtyard that will serve as a secondary entrance into the building and provides a space to support the department offices and program's community and industry events. The courtyard will likely contain concrete walks highlighting a variety of decorative finishes and techniques.

There will be a mechanical penthouse on top of the main bar to house equipment serving this building. The penthouse will be accessible by a stair and elevator. The building is envisioned to have a structural steel frame with concrete hollow core planks with a finished concrete topping. The steel frame will allow for special moments where concrete and other building materials can be showcased. These moments will include multiple casting techniques, textures, colors, and mix designs. The intent is to showcase the possibilities with concrete. The building's cladding will be a mix of brick veneer, exposed concrete, and aluminum storefront/curtainwall with insulated glazing

units. The roofing material is anticipated to be EPDM. Interior flooring is expected to be a mix of concrete, LVT, ceramic tile, and carpeting. The interior partitions will be metal stud framing with painted drywall and CMU. The building is intended to be fully sprinklered. A geotechnical report will be completed once the structural grid is set. Another critical piece of this project includes moments where the design process, construction, and building will serve as a teaching tool for students. Data collection related to concrete maturity, movement monitoring, and energy usage may also be incorporated into the design. The design will also incorporate more literal teaching movements with windows into walls, foundations, and structural and mechanical systems, as well as integral sample panels that showcase multiple construction types. The project will be required to meet the State of Tennessee High Performance Building Requirements. (HPBr)

**EXPANSION OF THE SATELLITE CHILLER PLANT:**

In addition to the new building we are tying the expansion of the Satellite Chiller Plant into this project in order to provide the necessary capacity for future development at the southeast corner of campus including the School of Concrete and Construction Management. This project plans to include additional infrastructure improvements to the following utilities: chilled water, steam, natural gas, domestic water, sanitary sewer, electrical service, telecommunication, and fiber network. The existing structural system appears to be load-bearing CMU with steel roof framing supporting a metal deck with an EPDM roof system. The new expansion will be one new bay, expanded to the south, consisting of a similar construction to the original structure to contain a new chiller for this project and an additional chiller in the future.

**CURRENT PROJECT STATUS:**

The design team is currently in the Schematic Design Phase.

**SCHEDULE:**

The tentative schedule dates for the following phases are:

**SCHEMATIC DESIGN PHASE**

NOTICE TO PROCEED:	12/06/2019
50% SDP:	01/30/2020
COMPLETE:	03/12/2020
REVIEW / APPROVAL:	03/22/2020

**DESIGN DEVELOPMENT PHASE**

NOTICE TO PROCEED:	03/23/2020
50% DDP:	06/01/2020
SBC MEETING:	06/11/2020
COMPLETE:	07/21/2020
REVIEW / APPROVAL:	08/04/2020

**CONSTRUCTION DOCUMENTS PHASE**

NOTICE TO PROCEED:	08/05/2020
50% CDP ( <i>100% CDP Utility &amp; Demolition Package</i> ):	10/01/2020
COMPLETE:	12/08/2020
FIRE MARSHAL APPROVAL:	12/22/2020
REVIEW / APPROVAL:	01/05/2021

**BID PHASE**

SET BID DATE:	01/12/2021
RELEASE FOR BID:	01/19/2021
RECEIVE BID:	02/16/2021
CONSTRUCTION CONTRACT COMPLETE:	03/09/2021

**PROJECT BUDGET:**

Bid Target \$30,395,000.00  
M.A.C.C. \$31,600,000.00

**SITE VISITS DURING THE PROPOSAL PERIOD:**

Before visiting the site, please notify Jamie Brewer of Campus Planning.  
[Jamie.brewer@mtsu.edu](mailto:Jamie.brewer@mtsu.edu)