

## **EXHIBIT F – Project Description**

### **Project Overview:**

West Virginia Community & Technical College System (WVCTCS) is proposing to build a new Pierpont Community & Technical College Aviation Maintenance Technology Facility, (PCTC AMT).

### **Project Design Overview:**

West Virginia Community & Technical College System (WVCTCS) is proposing to build a new Pierpont Community & Technical College Aviation Maintenance Technology Facility, (PCTC AMT). The facility is to be located at the North Central West Virginia Airport Authority's Aerotech Park off of WV Route 279 in Bridgeport, WV. This 65,000 square-foot single story facility will feature two large high bay hangars to accommodate a multitude of aircraft maintenance training support. The Aviation-related specialty labs and shops include:

- Avionics
- Flight Control
- Hydraulics
- Composite Metals
- Non-Destructive Testing
- Sheet Metal
- Wood Shop
- Paint Shop/Booth

The facility also includes an expanded welding lab for specialty training for students beyond the requirements of aeronautics. General classroom spaces adjoin the labs and hangars for a direct connection between instructional and practical learning. In addition to the administration area, support spaces include the Computer Lab, Learning Resource Center, Student Lounge, and Testing Center.

The overall building is a combination of CMU masonry, steel frame, and metal stud framing. The hangars are pre-engineered metal building framing with CMU walls. The exterior is clad in brick masonry and uninsulated metal panels over continuous insulation. The roof comprised of membrane roofing over rigid insulation for the majority of the structure, with a PEMB roof system over the hangars. Interior partitions are a mixture of metal stud \ GWB and masonry partitions depending on the room function.

### **Civil \ Site Design Overview:**

The building is located on a 6.22 acreage site which has been previously rough graded. The site development scope includes parking for a minimum of 260 spaces, access roadways, pedestrian sidewalks, maintenance tarmac, site security fencing as well as utilities and storm drainage systems. Utility design and coordination will address domestic water, sanitary sewer, storm drainage, and fire protection systems, along with coordination with electrical and telecommunications service providers. Existing utilities will be identified and protected, relocated, or modified as required, with service capacities and connection points coordinated with the owner and applicable utility authorities.

Stormwater management will include a coordinated system of surface inlets, subsurface conveyance piping, and storage facilities designed in accordance with regulatory requirements. Site grading will provide positive drainage, support ADA-compliant pedestrian routes, and accommodate emergency and service vehicle access. Erosion and sediment control measures will be incorporated to protect adjacent infrastructure during construction.

### **Structural Overview:**

The primary structural system consists of concrete masonry unit (CMU) walls and structural steel framing with composite floor slabs and roof deck. Aircraft hangars will be constructed as (PEMB)

## **EXHIBIT F – Project Description**

pre-engineered metal buildings, selected for their efficiency and ability to accommodate the large clear-span requirements of hangar spaces.

The foundation system consists of shallow spread footings with an allowable soil bearing capacity of 6,000 pounds per square foot (psf). Foundation sizing and design will be performed in accordance with the project geotechnical report.

### **HVAC Overview:**

- Packaged Rooftop Units and associated ductwork and terminal boxes to serve the office administration areas, classroom spaces and main lobby areas.
- Dedicated heating and ventilation unit and associated ductwork, gravity roof ventilators, indirect gas fired heating and high volume, low speed fans to service Aircraft Hangars.
- Exhaust fans and electric terminal heat for miscellaneous spaces.
- Dedicated ductless split system with direct expansion heat pump capabilities to serve Electrical Rooms, IT Rooms and similar rooms.
- Specialty equipment/systems including:
  - Utility type exhaust fans and interlocked heating and ventilation units with associated ductwork distribution to serve paint booths.
  - Dedicated dust collection system and associated ductwork to serve the wood shop equipment.
  - Dedicated fume extraction system and associated ductwork to serve the welding booths and similar associated welding equipment in the space.
- This facility will be provided with a DDC system. All HVAC equipment will be integrated into the DDC system.

### **Electrical Overview:**

- Primary power will consist of a 480Y/277V, 3PH, 4W switchboard, and associated service feeder from utility transformer.
- Branch distribution panelboards and step-down transformers throughout building, and associated feeders.
- Exterior diesel-fueled emergency generator, and associated automatic transfer switches, panelboards, feeders, and docking station, to feed emergency lighting and fire pump.
- LED lighting throughout the building and associated automatic lighting control devices.
- LED pole-mounted and building-mounted exterior lighting and associated lighting controls.
- Voice-annunciation type fire alarm system throughout the building.
- Emergency responder radio coverage system throughout the building.
- IP-based paging system throughout the building.
- Card access system for controlled doors.
- Surveillance cameras and associated licensing, cabling, and video recorder.

### **Plumbing Overview:**

## **EXHIBIT F – Project Description**

- Domestic and Fire Protection will be tapped from a new 12 inch water system to be installed by the Airport Authority.
- Domestic hot water is provided by redundant high-efficiency gas-fired heaters and a continuous recirculation loop.
- Dedicated compressed air system – including dual compressors, an air dryer and storage to serve the hangars and labs. Each lab is equipped with an individual compressed air loop supplied by a centralized master loop for maximum operational flexibility.
- Emergency showers and emergency eye-wash stations based on the lab’s chemical usage.
- Sanitary, storm and natural gas systems.

### **Fire Protection Overview:**

- Wet-sprinkler system throughout the building.
- Single-interlock pre-action system is dedicated to the welding lab.
- The fire service is supported by a fire pump and jockey pump infrastructure, with fire pump located in a dedicated pre-manufactured pump building.