

## IMMEDIATE NEED REQUEST

2021-2022

Requested by: (Unit, Department, Division or Vice President)		Administrative Services	
		Date to VP: 9/7/2021	
Location	(Fill-in)	Reviewed By (Signature):	
Department or Unit:	Maintenance	<i>Bill [Signature]</i>	
		Date to Cabinet: 09.28.2021	
Division:		Outcome:	
Vice President:	Morris Rodrigue		

Budget Request(s)	Justification for Request(s)	Funds Requested **			Funding
(List in Priority Order)	An "Immediate Need" is a shortfall in funding that, unless funded immediately, could cause a program to cease to function.	Amount	One-time	Ongoing	Approved
1. P2S Engineering Study for Mt SAC ALC Controls Study	Numerous problems within the campus Automated Logic Controls (ALC) system have resulted in difficulty providing adequate cooling to all buildings on campus. Discussions with various subject experts, with knowledge of our system, have all indicated that the system in its current configuration is not operating as originally designed and that changes to the system over time have created unintended results. P2S has been asked for a proposal to study/evaluate our ALC system and to provide the college with a study answering 3 distinct questions. 1-Is the ALC system robust enough to handle a mechanical system as complex as ours? 2- Where exactly is the ALC system not operating as originally designed ? 3-What are the causes of existing areas not matching designed intention and what are the recommended adjustments/repairs and estimated costs to return the system to the intended design criteria.	\$75,500	X		
Account Number(s):					
2.					
Account Number(s):					

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August 16, 2021

Mt San Antonio College  
Art Cadena  
Energy Manager  
Facilities and Management  
– Building 47  
Walnut, CA 91789

SUBJECT: Proposal for Engineering Services for Mt SAC Controls Upgrades Feasibility Study

Dear Art,

Thank you for the opportunity to present our fee proposal for engineering services of the Campus wide Controls Upgrades and Repairs Feasibility Study at Mt San Antonio College (Mt SAC).

We are pleased to provide our following proposal that provides our statement of understanding, our proposed scope of services, deliverables, and fees and is based on the information and needs discussed in August 2021.

#### STATEMENT OF UNDERSTANDING

The College proposes to upgrade its existing control systems throughout the campus in the Central Plant and at the building connections and outlying buildings. The core operations provided by the Central Plant are integral to the campus operations, and we must maintain operation to prevent unplanned downtime. The Central Plant and all of its operations, processes, and activities must remain operational and fully functional during the transition and upgrade of the controls. In order to identify the best path forward, a Feasibility Study will be conducted to evaluate the existing conditions, research upgrade options and present the resultant recommendations.

#### PROPOSED SCOPE OF SERVICES

1. Review as-built drawings showing existing conditions of Central Plant, connected and outlying buildings' HVAC and Controls Systems with the Mt SAC facilities staff to evaluate current conditions, performance, and deficiencies. Work with the staff to understand operational criteria and optimum operating parameters. Determine additional opportunities for automation of Sequences of Operations throughout campus.
2. Perform field surveys at the Central Plant, connected and outlying buildings to compare installed HVAC systems with existing Controls drawings and Sequences of Operations. Determine any deficiencies in the existing systems. Determine if Controls software package upgrades are available for the existing systems.
3. Prepare an evaluation of the existing conditions and system in a Feasibility Report for Campus wide Controls Upgrades and Repairs. As part of the report, provide recommendations that will increase the efficiency and reduce operating costs of the current HVAC system. ROM costing of recommendations will also be provided.

Anticipated recommendation components include:

- a. Replace outdated Controls systems.
- b. Develop and/or implement improved Sequences of Operations.
- c. Provide new Control systems that fully integrate all building systems with the Central Plant as needed.
- d. Connect and Control existing HVAC equipment.
- e. Interface optimally with Thermal Energy Storage System.
- f. Confirm/Identify Control Points.
- g. Specify required graphics for control system.
- h. Specify any equipment to be replaced/refurbished: control valves, control sensors, pumps, actuators, etc.
- i. Add VFDs, differential pressure sensors and checked bypass lines at connected buildings as required in order to automate the secondary distribution pump control sequence.
- j. During phases of replacement of controls, temporary provisions must be made to enable operators to maintain ability to perform daily adjustment of control valves during morning and evening changeovers of the thermal storage system. This operation is critical to support campus. Operators must have full control on a daily basis.

The primary benefits of Controls Upgrade Feasibility Report are as follows:

1. Identify new controls to help monitor and control any new and existing Central Plant and building equipment and components.
2. Identify need for installation of automated components and operations that will relieve pressure on the existing facilities and personnel.
3. Recommend how to provide energy efficient control system that responds to changing technological and functional requirements while lowering energy-related operating costs.
4. Recommend how to provide a control system that is expandable to meet future campus demand and expansion.
5. Recommend how to provide remote accessibility that allows operators to collect real-time data of all system components at any given point of time and place while also allowing them to make modifications to the system as needed.

## MEETINGS

Our team will meet with the campus Facilities Director and team three times:

- The first meeting will be following the field surveys to review preliminary findings and recommendations prior to writing the report.
- The second meeting will be to present the Draft Feasibility Report to the Facilities Director and receive any comments/feedback.
- The third meeting will be to present the Final Feasibility Report to the Executive Director of Facilities Planning and Management and team.

Engineering Services Proposal to:  
Art Cadena, Mt San Antonio College  
August 16, 2021

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#### DELIVERABLES

The Draft Feasibility Report will be delivered in PDF format. the receipt of campus comments, a Final Feasibility Report will be delivered in PDF format.

#### EXCLUSIONS AND CLARIFICATIONS

1. It is assumed the extent of this project is restricted solely to the replacement of the control components. Upgrades to major equipment, e.g., chillers, pumps, etc., are not anticipated.
2. All available as-built drawings will be made available.
3. It is assumed that the existing major electrical infrastructure is sufficient to support the project scope of work.

#### FEE

We propose to undertake the base project defined in this proposal for a fixed fee of **SEVENTY-FIVE THOUSAND FIVE HUNDRED DOLLARS (\$75,500)**. Fees will be billed monthly based on percent of project completion.

We look forward to working with you on completing this project successfully. Should you have any questions or need clarifications, please contact us.

Sincerely,



Charlotte Dean, PE, LEED AP  
Project Manager/Mechanical Engineer

21-2191 MT SAC CAMPUSWIDE CONTROLS STUDY  
CD/cd