



2024-2025

Engineering, Project Management Capital Improvements Program

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com

Table of Contents

Previously Awarded

610317: Condition Based Monitoring.....	3
610180: Discharge Valves BSH/LHQ/HSY	4
610333: Electromechanical Relay Phase 2	5
610330: Isolation Valves BLK/SND	6
610208: Motor Exciters TWP/SAN/BRW/SXV	7
610337: Noise Reduction Phase II MWP.....	8
610329: PLC5 Replacement WAD	9
610342: Recovery Wells Project TDRP	10
610517: Visitor Center HQ	11

Upcoming Projects for Award

610179: Air Compressors BRD/PIC/RED.....	12
610XXX: Aravaipa Fish Barrier	13
610343: Aqueduct Hydrology Improvement	14
610452: Backup Power Systems Replacement at Checks and Turnouts	15
610210: Fire Pump Replacement WAD.....	16
610348: Generator Replacement Pumping Plants.....	17
610198: Monitor Well Agua Fria Recharge.....	18
610344: Multi Use Building BSH & HQ	19
610349: Parking Lot Upgrades HQ.....	20
610347: Roof Fall Protection HQ	21
610257: Roof Replacement BLK/SND	22
610257: Salt-Gila Reline Discharge Lines and Manifold	23
610324: SCADA Replacement Control Center	24

<u>Future Years Projects</u>	25
------------------------------------	----





Project Name: 610317 – Condition Based Monitoring

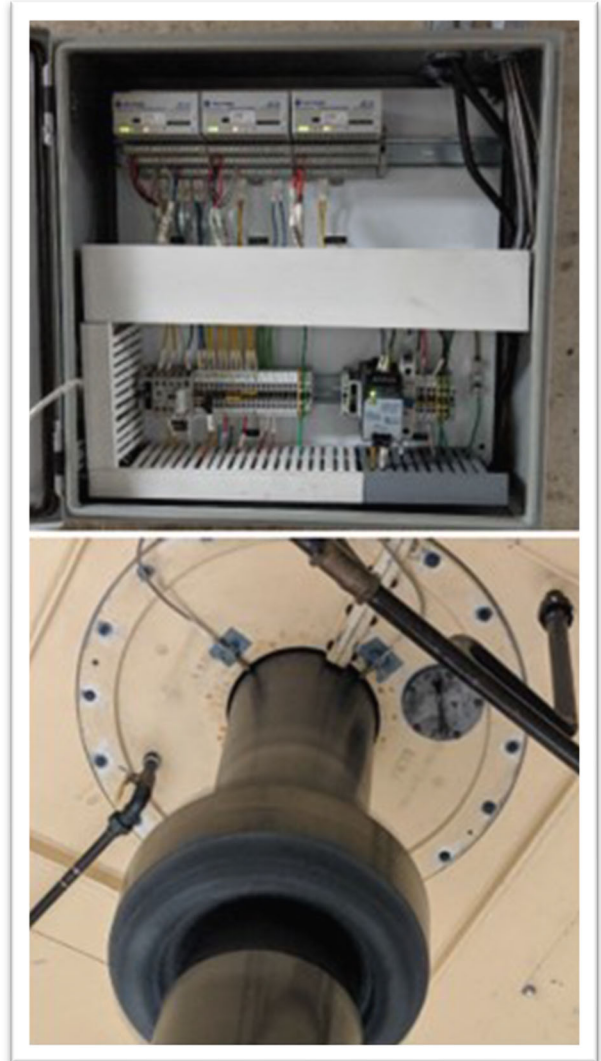
Location: South Plants

Discipline: Mechanical 20 Electrical I+C 80

Delivery Method: Job Order Contract

Scope: Condition-Based Monitoring (CBM) is defined as an equipment-maintenance strategy that assesses the state of major equipment for potential failures and identifies actions to prevent any such failures. CBM's original project scope was to install monitoring equipment across all pumping plants and one pump-generation plant (a total of 109 pump units) using three diagnostic measures: vibration analysis (109 units), motor analysis (109 units) and partial discharge testing (37 units among the South plants).

The Work includes fabrication and installation of control and communication panels, accelerometers, and corresponding conduits, and installation of CAWCD provided proximity probes at Twin Peaks, Sandario, Brawley, and San Xavier



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	Internal	X	<			
Construction	\$3.5M-\$4.5M	JOC	June 2023	<			

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com

Project Name: 610180 – Discharge Valves

Location: Bouse Hills, Little Harquahala, & Hassayampa

Discipline: Manufactured 75%, Mechanical 15%, Electrical 10%

Delivery Method: Purchase Order

Scope: The pump units cannot operate without a functional discharge valve, and the long lead time (approximately 12 months) renders these assets as a critical risk to operation if there's a unit failure. Early on, it was identified that it would be beneficial to design the replacement valves in a way that emergency standby valves could be used at any of the three plants. The original installed equipment Central Arizona Project used lower pressure class components at the Bouse Hills and Little Harquahala plants due to the lower head at the plants. Fourteen (14) valves at the west plants, plus a valve of each size for emergency standby, will be installed by the CAP Heavy Overhaul Group (HOGs), with fabrication of ancillary components



performed by CAP's machine shop and industrial coatings group. Fabrication by Val-Matic occurs over three years, with one of the three (3) emergency standby valves being provided each year; 2022, 2023, and 2024. The final 66-inch valve will be received in 2024.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	x	Internal	X	<			
Construction	x	Internal	X	<			

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610333 – Electromechanical Relay Replacements (Phase II)

Location: Multiple

Discipline: Electrical I+C 100

Delivery Method: Job Order Contract

Scope: CAP pumping plants use a variety of protective relays for large electrical-system protection, including electromechanical (EM) relays, microprocessor-based relays, and solid state relays. CAP currently has some form of protective relay from several of the major equipment vendors. EM relays are reliable and effective, but have a maximum service life of about 30 years. While EM relays are still made, they are becoming more expensive and supplies are limited. Many utilities are switching to digital relays to circumvent the challenge of managing performance and reliability for multiple generations of in-service relays. Phase two work will replace EM relays with digital relays on transformers and units at Waddell Pump / Generating Plant and the South Plants (Twin Peaks, Sandario, Brawley, San Xavier, Snyder Hills and Black Mountain Pumping Plants). The project also includes integration of relay communications and excitors into the electrical system.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$750K-\$1M	JOC	Feb 2024	<			
Construction	\$13M-\$15M	JOC	June 2024	<			>

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com

Project Name: 610330 – Isolation Valves

Location: Snyder Hill Pumping Plant

Discipline: Mechanical 100

Delivery Method: Job Order Contract

Scope: This project replaces the original swing check valve with nozzle check valves at Black Mountain and Snyder Hill Pumping Plants. While the butterfly valves have performed as expected, the associated check valves have had issues since installation. The check valves perform their main function of protecting the pumping units from reverse flow but are unable to function per the final hydraulic transient analysis, which requires a fast-closing, first-stage check-valve closing. The current valves and dampening system have been unable to slow the closure of the valve disk. This single-stage closure is causing a localized pressure surge on the downstream side of the discharge piping. During a normal unit shutdown, the pump runs until the discharge butterfly valve is closed. Therefore, the potential for a check valve leak only applies to an emergency shutdown, unit trip or loss of plant power. After an emergency shutdown or trip, the discharge butterfly valve will still close in approximately 60 seconds and stop any reverse flow. The only potential situation for leakage over the long term is if the plant loses power. This would require plant personnel to manually close the discharge valves to prevent draining the discharge line back through the check valves. A pilot valve test at Black Mountain Pumping Plant showed that a nozzle-check valve has the ability to close even faster than a swing-check valve, eliminating the need for the second-stage closing. The advantage of nozzle-check valves is that they fully close, eliminating current concerns with leaking or spinning the pump backwards.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	In-House	X	<			
Construction	\$2.5M-\$3M	JOC	Jan 2022				

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com

Project Name: 610208 – Motor Exciters

Location: Twin Peaks, Sandario, Snyder Hill,
Black Mountain

Discipline: Mechanical 80% Electrical I+C 20%

Delivery Method: Direct Select

Scope: The twenty-six (26) synchronous motor exciters at Twin Peaks (6), Sandario (6), Snyder Hill (9), Black Mountain (5) are outdated, and replacement part sourcing is becoming very difficult. The current state of the motor exciters is increasingly unreliable. At Twin Peaks and Sandario the discharge resistors are located internally on the motors; in order to replace a failed OEM resistor, the rotor needs to be removed from the motor which requires extensive work. On the Snyder Hill and Black Mountain motors there have been several failures which have required a costly rewind of the OEM spool-type resistors. Additionally, all motors have established a trend of excitation trips. Commonly, no problem is found, however, and the troubleshooting results in unnecessary expenditures, and impacts operation's capability to move water through these plants. The project scope and description consists of a replacing, in kind, the current exciter packages with a brushless package. Similar to the work performed at Brawley and San Xavier in 2012, the existing OEM brushless exciters will be replaced with a new rotating package, which will utilize new control modules and power block SCRs, diodes and rectifiers. This will establish consistency across the plants. The team intends to solicit bids for the equipment and procure the excitation packages, which will be installed during annual PM installation windows at Twin Peaks, Sandario, Snyder Hill and Black Mountain.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	In-House	X	<			
Construction	\$1M-\$1.3M	Internal	Feb 2021	<			

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610337 – Noise Reduction (Phase II)

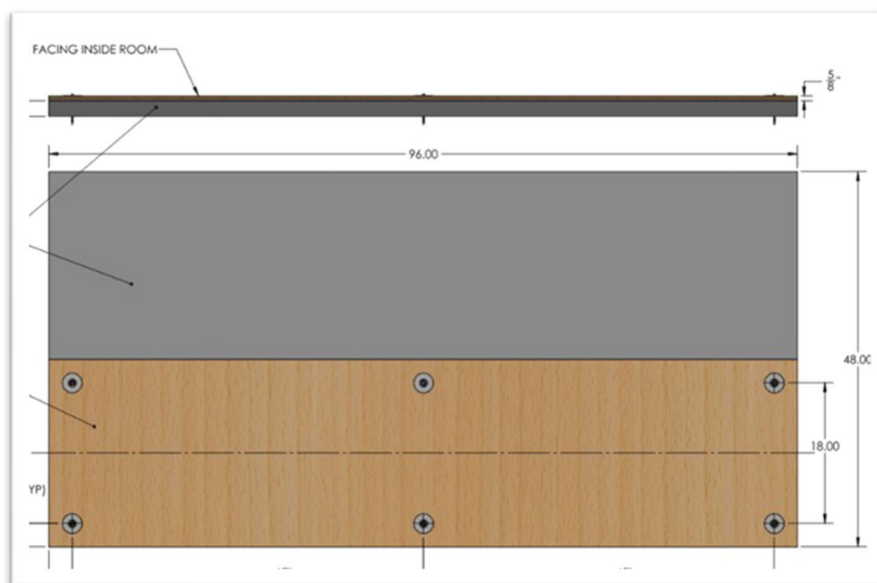
Location: Mark Wilmer Pumping Plant

Discipline: Civil 100

Delivery Method: Job Order Contracting

Scope: The scope of this project includes the design and installation of cementitious wood-fiber acoustic wall panels. ‘Wood Wool’ panels from Envirocoustic will be mounted over existing FSorb panels originally installed in 2021. The Mark Wilmer Plant Noise Reduction project was executed in 2021 and successfully mitigated the hazardous noise present on Levels 1 & 2 of the plant. The project included installation of FSorb acoustic panels that provide soundproofing on walls and ceilings throughout levels 1 & 2 of the plant. During a subsequent annual inspection, CAWCD’s commercial property insurance company, FM Global, considered the installation of the FSorb panels a fire risk and potential liability. FM Global’s recommendation was to remove, replace, or cover the panels in a material that is inherently nonflammable. A second phase of this project was introduced to address FM Global’s concern.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	In House	X	<			
Construction	\$900K-\$1.1M	Direct Select	Feb 2023				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610329 – Programmable Logic Controller (PLC) Replacements

Location: Waddell Pumping Plant

Discipline: Electrical I+C 100

Delivery Method: Design Build

Scope: Waddell Pump/Generating Plant has been controlled by 13 Allen-Bradley programmable logic controllers (PLCs) since operation of the plant began in 1993. PLC components, including CPUs, input/output cards, and network interfaces, all have reached the ends of their lifecycles and are no longer available. Many companies and utilities are preparing, or have migrated, to the newest generation of PLCs. This project will replace and standardize new equipment for interoperability with existing systems. Waddell Pump/Generating plant cannot be operated without functioning PLCs. Since the PLC- 5 components are no longer manufactured, spare parts will eventually become unobtainable and before that prohibitively expensive. Depending on the specific component, this could result in a failure in the current PLC system, and the inability to operate some or all of the plant.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	X	Jan 2020	<			
Construction	\$3M-\$3.3M	Design Build	Jan 2020	<			



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610342 – Recovery Wells Project

Location: Tonopah Desert Recharge

Discipline: Mechanical 90 Electrical I+C 10

Delivery Method: Job Order Contracting

Scope: The scope of this project includes the design and construction of two pilot recovery wells at the Tonopah Desert Recharge Project (TDRP). The pilot wells will allow CAWCD to assess aquifer hydraulic properties, water quality, and determine the water treatment requirements for future water recovery. After the pilot phase is complete, site construction of additional wells will begin, which will ultimately feed a new treatment and water recovery facility.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	JOC	March 2023	<			
Construction	\$10M-\$12M	JOC	March 2023	<			

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610517 – Water Education Center

Location: Project Headquarters

Discipline: Civil 40 Mechanical 30 Electrical I+C 30

Delivery Method: CMAR

Scope: The Board of Directors has approved pursuing the concept of a Water Education Center, which will include a medium-sized facility (appx. 7,200 sq. ft.) and will advance CAP’s goals of serving internal and external stakeholders. A recent market-analysis showed that CAP Headquarters is well-placed for such a facility, and while tourists may not make up a large portion of the Center’s attendees, those with a special interest in water issues or educational experiences would. Public interest in water is increasing steadily, and requests for CAP presentations and information are on the rise. There has always been interest in understanding CAP operations and in touring CAP facilities (the headquarters’ control center was utilized for this purpose for many years) but there are increasing physical and cyber security limitations on public access to CAP’s headquarters, control centers, and pumping plants. In addition, there is no defined space at headquarters to host official briefings, and no view of the canal that is accessible to visitors.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$1.5M-\$2M	CMAR	April 2023				
Construction	\$20M-\$22M	CMAR	August 2023				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610179 – A-Plants DVOS Air Compressors

Location: Brady, Picacho, Red Rock

Discipline: Mechanical 80 Electrical I+C 20

Delivery Method: Job Order Contract

Scope: The three duplex air compressor skids for the Discharge Valve Operating Systems (DVOS) at Brady, Picacho, and Red Rock pumping plants are obsolete. The air compressors on the original skids provide 1+1 operational redundancy. Both can operate simultaneously with a lead / lag function determined by pressure switches on the air receiver tank, and both compressors are powered from a common electrical feed from a single 30A 3ph/480VAC circuit. The current compressors are rated at 7 SCFM at 1300psi, and are powered by a 7.5HP motor. The actual maximum system pressure is determined by a pressure switch (63VSAH/L) located on the air receiver located at the discharge of the air compressors. The pressure switch is set to start the compressors at 575 psig, and stop at 600 psig. The system pressure is prevented from exceeding 660 psig by relief valves on the compressors and the air receiver upstream of the hydraulic accumulator system.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	Internal	X	<			
Construction	\$800K-\$1M	Job Order	June 2023				

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610XXX – Aravaipa Fish Barriers

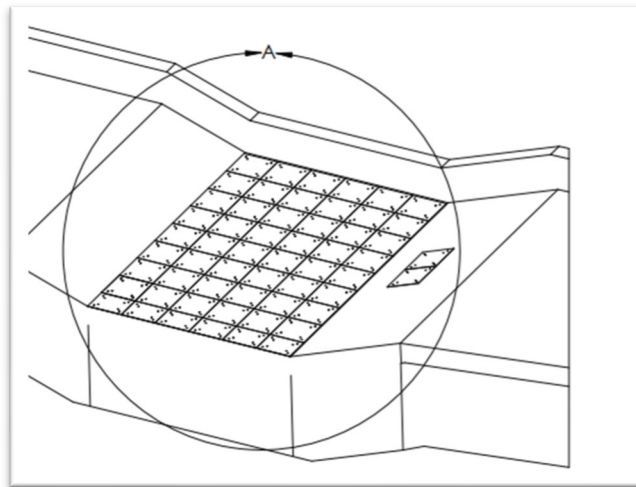
Location: Aravaipa Creek

Discipline: Civil 100

Delivery Method: Job Order Contract

Scope: CAWCD is responsible for maintaining a number of fish barriers. These structures were originally installed by the Bureau of Reclamation as an environmental measure to allow water to flow downstream while preventing CAP canal fish from swimming upstream, spawning, and negatively impacting the ecosystems in which they are non-native species. The water flows, over time, have eroded away at the stilling basin leading to erosion of concrete and exposed rebar. The scope of the project will remove and replace the spalling locations with new rebar and concrete and install anchored steel plates to prevent future erosion.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	x	In-House	x	<			
Construction	\$80K-\$100K	JOC	April 2025				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610343 – Aqueduct Hydrology Improvement

Location: All

Discipline: Geotechnical 80 Structural 20

Delivery Method: CMAR

Scope: CAP has approved the means and methods to address potential vulnerabilities of cross drainage infrastructure, to improve dike embankments heights, and for other construction at the most critical locations along the canal. The project scope includes 21 sites, identified by a consultant evaluation update, that were characterized as the most problematic areas with the highest risk. The improvements will target potential impacts to the canal and downstream conditions if, for example, a dike or overcrossing failure were to happen. In 2021, the Aqueduct Resiliency Committee (ARC) was established to evaluate the earthen dikes modern suitability to mitigate risks from damaging floods. The ARC set out to update CAP’s hydrologic information from a 2010 study with data collection effort and studies completed after 2010. CAP contracted with a consultant who completed the evaluation update in November 2022. The update includes additional studies, design of improvements, and the construction of the improvements.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$10M-\$15M	Direct Select	Jan 2024		>		
Construction	\$100M-\$200M	RFQ	Jan 2024			>	

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610348 – Generator Replacement

Location: Multiple Sites

Discipline: Mechanical 60 Electrical I+C 20

Civil 20

Delivery Method: TBD

Scope: To ensure reliable operation of critical plant systems during a power outage, each pumping plant has a stationary emergency backup generator that supplies 480 VAC. This project will remove and replace the existing generators, load banks, and diesel tanks at each of the plants with appropriately sized modern systems. This will include adding additional external power connections at the pumping plants for additional temporary power sources.



The generators at Headquarters, Pinal Field Office, Tucson Field Office, all check structures and turnouts will be excluded from this project scope. A design concept evaluation is currently underway to examine alternative energy sources in addition to traditional diesel generators. The full design phase will commence in 2024 and is estimated to take 18 months for completion. To accommodate outage constraints at the plants, a 24-month construction period is estimated to begin in late 2025.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$750-\$900K	TBD	March 2024				
Construction	\$14M-\$15M	TBD	April 2025				>

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610210 – Fire Pump Replacement

Location: Waddell Pumping Plant

Discipline: Mechanical 70 Electrical I+C 30

Delivery Method: Job Order Contract

Scope: This project will replace the fire pump and associated controls at Waddell Pump/Generating Plant. The new pump will also require upgraded electrical and backup power supply lines to the newer and larger motor. The current fire pump at Waddell Pump/Generating Plant has reached the end of its life and can no longer serve the needs of the plant, which is a safety issue. The new pump will be larger, and sized to meet today's modern codes & standards for fire protection and life safety.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	In-House	X	X				
Construction	\$300K-\$400K	JOC	June 2023				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610452 - Backup Power System Replacements

Location: Checks, Turnouts, and Microwave Sites

Discipline: Mechanical 70 Electrical I+C 30

Delivery Method: TBD

Scope: This project addresses CAP's need for the replacement of backup power systems at 8 mountain-top microwave sites, 33 turnouts and over 30 check structures. These sites currently utilize various direct current (DC) chargers and batteries for multiple voltages, ranging from 120 volts DC (VDC) to -48 VDC. The existing chargers are to be replaced with an integrated uninterruptible power supply (UPS) and DC power distribution system. This system incorporates all existing voltages and also consolidates the power system to 24 VDC. The new battery-charger system integrates voltages that are still in use. This project will also replace emergency backup generators and automatic transfer switches (ATS) at locations where existing equipment is beyond service life and requires high levels of corrective maintenance. Since the previous budget was prepared, this project's scope has expanded to 48 turnouts, 39 check structures and 16 mountaintop sites, for a total of 103 units. Consistent with the broader scope, project cost has increased. Higher contract costs have also contributed to the project cost increase.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$800K-\$1M	TBD	May 2024				
Construction	\$6M-\$7M	TBD	May 2025				>

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610198 – Monitor Well Agua Fria Recharge

Location: Agua Fria

Discipline: Mechanical 90 Electrical I+C 10

Delivery Method: Job Order Contract

Scope: The scope of this project is for design, permitting, and construction of a new monitoring well at the Agua Fria Recharge Project. The team will work with a consultant and drilling contractor to coordinate the location and functional requirements of the new well. The new well will help monitor water levels for the recharge project. Existing monitoring wells at this site have recently become inoperable. The new well will provide CAWCD with more operational information and control, which will improve operation of the recharge project.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	X	Direct Select	Jan 2024				
Construction	\$1.5M-2M	JOC	March 2024				

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610344 – Multi-Use Building

Location: Bouse and Headquarters

Discipline: Civil 60 Mechanical 30 Electrical I+C 10

Delivery Method: Job Order Contract

Scope: The scope of this project includes the design and construction of two new multi-use maintenance buildings that will be located at Headquarters and the Bouse Maintenance Yard. These new spaces are designed to increase safety and efficiency for CAP’s maintenance staff. The two buildings will be pre-engineered metal buildings placed on new concrete foundations. The building and sites will include concrete driveways, air conditioner units, air compressor, restrooms, utility sinks, eye wash stations, and new electrical distribution systems. CAP is seeking to provide the CAP Fleet and Headquarters maintenance teams with dedicated workspaces that will be equipped with all the required tools and features to execute their work efficiently, safely, and ergonomically.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$150K-\$200K	Direct Select	Jan 2024				
Construction	\$1M-\$1.2M	JOC	Apr 2025				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610349 – Parking Lot Upgragdes

Location: Headquarters

Discipline: Civil 100

Delivery Method: Job Order Contract

Scope: The scope of this project includes the complete replacement of asphalt pavement at Headquarters Lots I and J. The project will also consist of additional improvements at Lots I and J that include regrading, drainage improvements and the installation of electrical conduits for future use. CAWCD regularly performs maintenance of asphalt pavement at all CAWCD facilities. Capital costs have been identified in the maintenance and replacement of asphalt pavement at CAWCD’s Headquarters facility. The condition of the asphalt across the various lots at headquarters varies, but at its worst, some lots have developed severe fatigue cracking (alligator cracking).

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$80K-100K	Direct Select	March 2024				
Construction	\$1.2-1.5M	JOC	Jan 2025				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610347 – Roof Fall Protection

Location: Headquarters

Discipline: Civil 100

Delivery Method: Job Order Contract

Scope: It is recommended that a combination of fall protection equipment be installed in strategic locations on Headquarters rooftops, to reduce fall hazards. The required fall protection equipment includes the installation of permanent roof edge guardrails at rooftop entry points, temporary guardrails at atrium areas, and ladder safety modifications. The work will involve the fabrication and installation of approximately 350 feet of permanent railing, and 450 feet of temporary railing. Installation of permanent guardrailing will require the removal and reinstallation of spray foam roof coatings and lightning protection components.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	In-House	X	X	<			
Construction	\$500K-\$600K	JOC	May 2023				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610257 – Roof Replacement

Location: Black Mountain and Snyder Hill Pumping Plants

Discipline: Civil 100

Delivery Method: Job Order Contract

Scope: Black Mountain (BLK) and Snyder Hill's (SNY) current condition of the roof coatings have been confirmed by both internal and external professional inspections. The polyurethane coating has been repaired numerous times over the past 10-15 years, and has reached the limits of possible repair. The scope of this project will also address the absence of a rooftop fall protection system, which currently poses a significant fall hazard during maintenance. Removal and disposal of the existing spray foam roofing down to structural concrete deck throughout the area of both pumping plant structures is required. Installation of the new roofing system, will use a foam adhesive to adhere an engineered tapered iso-board substrate system with crickets leading to drains in the roof deck. The new engineered tapered iso-board will establish the proper slope to drain, and a new roof coating system will be applied that is warrantied for 20 years.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$60K-\$80K	Direct Select	June 2022	<			
Construction	\$600K-\$700K	JOC	Oct 2023				



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 710042 – Salt-Gila Reline Discharge Lines and Manifold

Location: Salt-Gila Pumping Plant

Discipline: Civil 100

Delivery Method: CMAR

Scope: The original enamel coating in the discharge manifold at the Salt Gila Pumping Plant is deteriorating. Sections of the enamel have disbonded from the primer coat, and although the primer is still mostly intact, there is “alligatoring” and cracking throughout allowing corrosion of the substrate. Corrosion will continue to expand, accelerating the deterioration of the remaining lining and the steel substrate, which will eventually begin to weaken and develop leaks. To address this, “left plant” will be relined in 2024, “right plant” in 2025.



	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	x	In-House	January 2024				
Construction	\$3M-\$4M	CMAR	May 2024				

Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com



Project Name: 610324 – SCADA Replacement

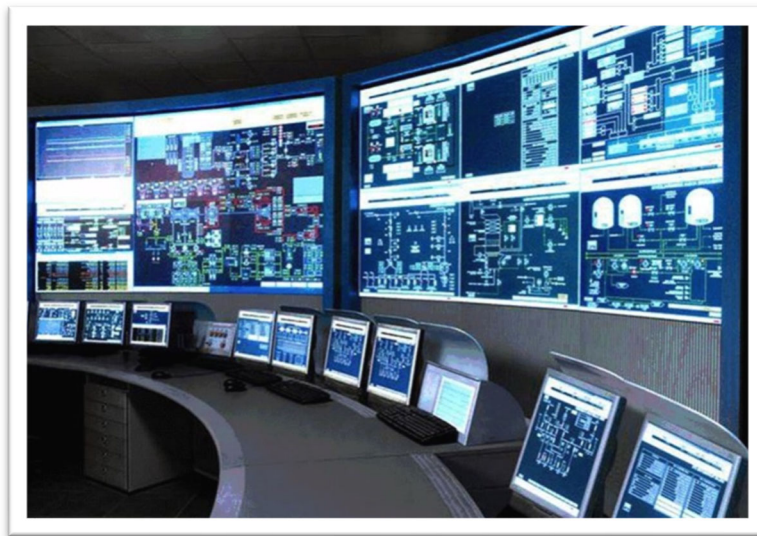
Location: Control Center

Discipline: Electrical I+C 100

Delivery Method: Direct Select

Scope: The CAP system was designed to rely on remote operations to divert and deliver Colorado River water. The current Supervisory Control and Data Acquisition (SCADA) system was placed into service in 2012, with most hardware purchased in 2010. A hardware/software replacement is vital to keep up with changes and technological advancements to address security concerns. CAP owns and maintains IT architecture to support multiple SCADA systems (operations and maintenance). There may be an opportunity to optimize the management of these assets, realizing the same or improved functionality of these SCADA systems by consolidating or standardizing the systems used to maximize resources in an efficient manner.

	Budget	Process	Advertise Date	2023	2024	2025	2026
Design	\$400K-\$500K	RFQ	June 2021	<			
Construction	\$8M-\$10M	RFQ	Oct 2024			>	



Visit: <https://apps.cap-az.com/eBids/Construction> to sign up for project alerts and more information.

P.O. Box 43020 – Phoenix, AZ 85080-3020 · 23636 North Seventh Street – Phoenix, AZ 85024 · 623-869-2333 · www.cap-az.com

Future Years Projects

(Thousands)

	2026 Advisory	2027 Advisory	2028 Advisory	2029 Advisory
ADVISORY CIP PROJECTS (POST-2025)				
Agua Fria River Siphon Lining Repairs	\$ 10,000	\$ -	\$ -	\$ -
Analytics Platform	1,000	-	-	800
Backup System Refresh	-	-	1,300	-
CAP Warehouse Fire Sprinkler Upgrades (Headquarters)	-	500	-	-
Elevator Replacement Phase 3 (Headquarters)	500	3,000	-	-
Fire Door Upgrade Project	1,000	-	-	-
Fire Sprinkler Upgrades (Headquarters, Warehouse)	-	700	-	-
HSY - Unit Breaker Replacement (U4, U5, U6, U7)	4,400	-	-	-
Implement Alt 2B from LCCA for Agua Fria River Siphon	5,000	-	180,000	70,000
Implement Alt 2B from LCCA for Salt River Siphon	7,500	-	190,000	60,000
Information Technology Upgrades	81	47	1,004	1,036
Iron Mountain Data Center Refresh/Move	300	200	-	-
LHQ Right Discharge Manifold Reline	1,500	-	-	-
Microwave Site Fire Alarm Replacement	1,500	-	-	-
Network Refresh WAN System (7 years)	800	800	-	-
Projected Network Refresh	300	300	300	300
Projected Server Refresh	300	300	300	300
PSB Data transmission infrastructure (ICON)	-	-	-	1,600
Pumping Plant Roof Replacement	-	2,250	2,250	1,125
Reconfigure Trashrake Monorail to Eliminate Curves	-	3,500	-	-
SCADA Server Room Adaptation - WaterOps	200	-	-	-
Security System Replacement	1,000	200	-	-
TDRP Recovery Facility	-	1,000	-	-
TFO HVAC Replacement for R22 systems	-	1,000	-	-
Transformer McCullough	2,000	-	-	-
Transmission Projects	1,500	1,500	1,500	1,500
WAD Fixed Cone Valve Rebuild	-	500	-	-
Wi-Fi Refresh	-	-	200	-
Advisory CIP Projects (Post-2025) - Subtotals	\$ 38,881	\$ 15,797	\$ 376,854	\$ 136,661
Capital Improvement Plan (CIP) - Totals	\$ 119,951	\$ 56,425	\$ 411,080	\$ 176,812
Capital Equipment - Totals	\$ 7,895	\$ 6,710	\$ 6,951	\$ 7,838
CAPITAL BUDGET - TOTALS	\$ 127,846	\$ 63,135	\$ 418,031	\$ 184,650