

MARTINEZ DETENTION FACILITY SECURITY SYSTEMS RENOVATION CONTRA COSTA COUNTY, CALIFORNIA

PROJECT DESCRIPTION:

The existing detention facility was built in the late 1970's, and at that time was on the cutting edge of the application of technology for the control and management of an inmate population. Over the years, the facility control and monitoring systems had experienced significant use and were reaching or even past their anticipated useful life. Due to the increasing number of component failures in the operation of the security control system, the County elected to engage ACSI, because of its extensive experience with security controls, to analyze the systems and make recommendations for the appropriate technology to use in the replacement and upgrading of the existing systems. The project included recommendations for a complete security control system and a stand-alone personal duress alarm system. Total project construction costs were approximately \$900,000.

The facility consists of a four level with housing units for medium and maximum pretrial detainees as well as one unit for Female detainees. Intake, Booking, Medical, and Release facilities are also incorporated into the building. Immediately adjacent to the facility, and connected by a fully enclosed security passage, is a County courthouse.

ACSI'S RESPONSIBILITIES:

ACSI was directly engaged by the County to assess the security systems condition, identify the systems in need of repair or upgrading, and make recommendations for County action. As part of the initial study, ACSI evaluated a number of alternative technologies that could be installed in the facility without major reconstruction and the associated costs. Following acceptance of the study recommendations, ACSI prepared a complete construction document package including the Counties standard general conditions and bidding requirements. ACSI further assisted the County with reviewing the received bid proposals and administration of the construction process as well as performing final acceptance testing of the systems at the completion of the work.



**NEW CENTRAL CONTROL ROOM DISPATCH TYPE
CONSOLE**

The design prepared by ACSI was able to reuse almost the entire existing conduit infrastructure in the facility with only minor additions needed to accommodate the new systems. The technologies used in the replacement systems included the following:

- New Fully Integrated Security Control and Monitoring Systems
 - Door Control and Monitoring
 - CCTV Control for Movement
 - Intercom Control
- CCTV Surveillance With a New Matrix Video Switcher
- New Color Cameras
- Added Pan Tilt Zoom Rooftop Surveillance Cameras
- New Multiple Master Intercom System
- 3 New Touch Screen Control Panels and 14 Graphic Housing Intercom Panels
- Upgrading of the Facility Wide and Zoned Announcement Systems
- Replacement of the Personal Duress Alarm System
- Integration of the Existing Courthouse Duress Alarm System and CCTV Cameras

The existing security control systems showed excessive wear and in their current state, potentially capable of resulting in catastrophic failure. In addition to replacement, they were also in serious need of upgrading to the functional and performance level commonly found in modern detention facilities. Furthermore, by current standards, the construction of the existing systems did not conform to the requirements of the electrical code.

ACSI recommended that the security control system be replaced with a Programmable Logic Controller based system with touch screens. With proper sequencing of the work, this combination of technologies would allow the facility to maintain full operation with only minimal staffing impacts throughout the system upgrade process, while after installation also providing modern security control and monitoring capabilities.

These recommendations were used as a guide in the County's decision and budgeting process for the continuation and completion of the needed facility security control system renovation and upgrade.



ORIGINAL EQUIPMENT CABINET



FINAL EQUIPMENT CABINET