

MISSION COLLEGE INFORMATION SYSTEMS FACILITY WEST VALLEY-MISSION COMMUNITY COLLEGE DISTRICT
Santa Clara, CA



Design Features

- Key project for Campus technology infrastructure
- Central Hub for Data and Telecom Infrastructure
- Front Door Onto Campus

Size: 4,000 SF

Construction Cost: \$2.23 Million

Completion: October 2012

The Mission College Information Systems (IS) Building is the new central hub for this community college campus' vital data and telecommunications infrastructure. The \$2.23 million, 4,000 SF single-story steel framed technology center is a critical facility on campus. Sustaining the high-tech infrastructure of this public higher education facility, this new IS facility is situated in the heart of Silicon Valley.

Working through the shared governance process, the building users helped shape the program to support the Information Systems Department's mission. This is accomplished by creating a solid technology infrastructure, and providing an efficient and effective workplace environment to support the colleges' programs and operations.

Building amenities include a conference room, multiple staff offices, network testing facilities, and secure work areas for college owned equipment maintenance and repair. The data center and MPOE/MDF rooms are secured through multiple layers of access control. An adjacent enclosure provides generator power back-up and service vehicle parking for the department.

The new structure sits at the entry of the campus, creating a visual welcome, while the building's design fits seamlessly into the Campus Master Plan. In the core of Silicon Valley, this placement highlights the Districts' commitment to providing its community with the forefront of technology.

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Front Door to Campus

Approaching the Mission College Campus by vehicle or transit, the modern new Information Systems (IS) Facility receives its visitors warmly. The new IS building footprint is located along Mission College Boulevard, nestled at the campus frontage, beckoning visibility from the Great America Parkway thoroughfare and tech-giants including the Yahoo! Campus.

The main conference areas face southeast toward the street and feature floor to ceiling glazing with bold geometric sunshades, offering an element of transparency to this high security structure. The glazing wraps to the entry of the building, offering views back through to the adjacent burrowing owl refuge.

The campus server room, MPOE and MDF facilities face inward to campus and a student parking lot. Its robust structure is protectively clad in a bright metal paneling, imparting a sleek and contemporary look, while fitting flawlessly into the Campus Master Plan.



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Secure Workspaces

The new Mission College Information Systems (IS) Facility incorporates a variety of workplace environments for its technical and administrative staff. Through the main entry, within the first level of security, a conference room with kitchenette and four private offices are included for use by IS staff, or other college groups as needed. A network testing facility is also contained within this zone. With direct adjacency to the data center, technicians use this facility to repair and test components of its equipment.

A second layer of security grants access to an MCS workroom, used exclusively by IS staff for college owned equipment maintenance and repair. Technical workbench stations provide ample task lighting and bin storage for repairs and upgrades of computer hardware. The facility is also designed to receive and store pallets of equipment for distribution to the college.

The campus data center and network MPOE/MDF rooms are located beyond, through a third level of security access. A central console includes additional workspaces with windows into each of the Data Center and MPOE/MDF rooms.



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Data & Technology Infrastructure

The new IS building houses the technology infrastructure for Mission College, including essential data and telecom services, fire alarm and emergency notification systems. Its facility includes access for service providers, cabling entry and exit fields, and protection from disaster or power outage.

The main distribution frame (MDF) and main point of entry (MPOE) program mechanisms reside together in an access controlled facility, from which all connections from the outside world enter the campus for distribution along an underground campus infrastructure loop. The MPOE/MDF room houses miles of cabling & hundreds of connections. In a separate secure room, the data center houses all computer and data storage servers, connecting to all ports across the campus.

In the case of an emergency or power failure, the mission critical facility includes two layers of redundancy to maintain system function. An uninterrupted power service (UPS) system will energize the equipment in case of failure, allowing IS staff to safely disconnect servers without losing data. An adjacent large diesel generator provides power for up to 24 hours to campus emergency systems, while a sophisticated fire suppression system uses inert gases to chemically cool and extinguish the fire, without damaging the sensitive machinery.

