



CASE STUDY

RENOVATING THE ICONIC OFFICERS' CLUB AT MARINE CORPS AIR STATION MIRAMAR

stellar
TAKING SOLUTIONS FURTHER®

stellar.net | 800.488.2900

MARINES
THE FEW. THE PROUD.

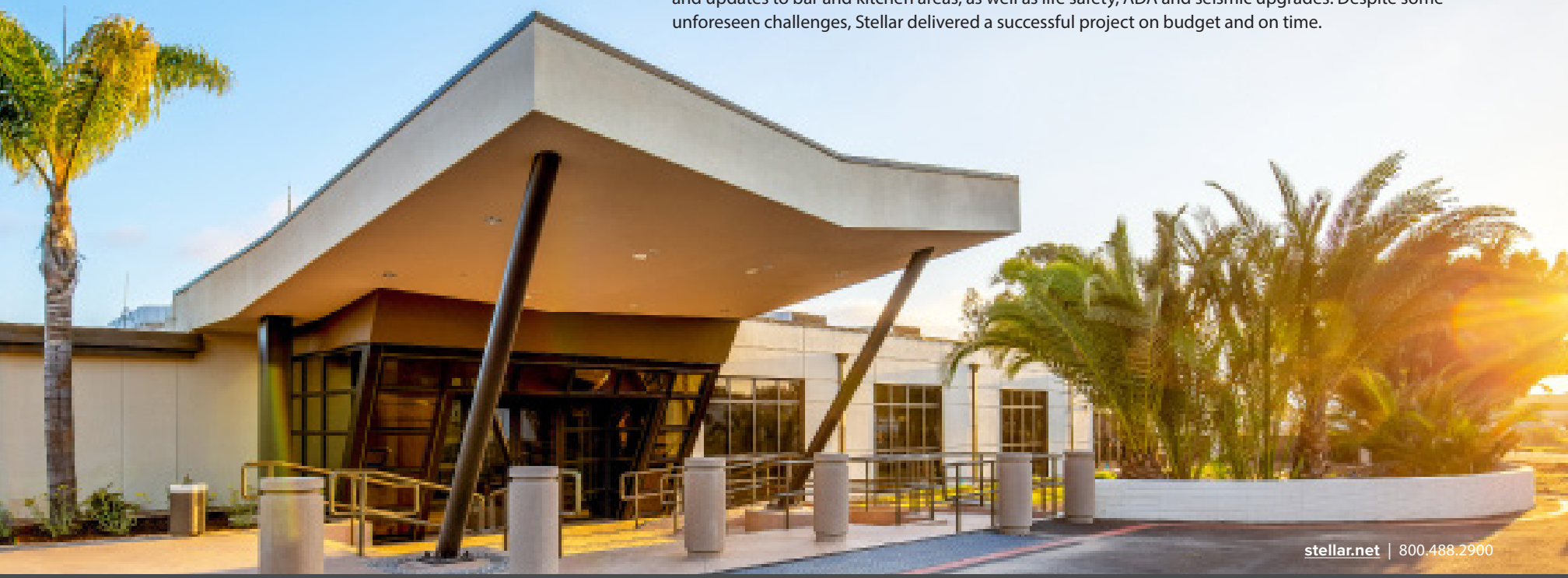
PROJECT:
Commissioned Officers' Club at MCAS Miramar

LOCATION:
Miramar MCAS, San Diego, California

The Commissioned Officers' Club at Marine Corps Air Station (MCAS) Miramar has hosted numerous events, meetings and social gatherings since it was constructed in the 1950s. But after 70 years, the facility needed modernization and safety upgrades.

The space is the setting for a memorable scene from the 1986 film Top Gun where the lead character serenades his flight instructor with his version of "You've Lost That Lovin' Feelin'." Not only that, the building holds sentimental significance to a lineage of military members and their families who shared unforgettable memories at the many events and ceremonies hosted at the facility. Therefore, any renovations needed to honor the club's history and prestige.

The $7.7 million design-build project included a few key priorities, including aesthetic improvements and updates to bar and kitchen areas, as well as life safety, ADA and seismic upgrades. Despite some unforeseen challenges, Stellar delivered a successful project on budget and on time.



SOLUTIONS:

1. Designing strategically while adapting to surprises along the way
2. A soaring entrance and reimagined kitchen
3. Keeping the "Top Gun" bar in top shape
4. Building to meet fire safety and seismic requirements
5. A historic event space brought into the modern-day

1 DESIGNING STRATEGICALLY WHILE ADAPTING TO SURPRISES ALONG THE WAY



Like many old buildings, there was limited data on previous updates, and the government-provided as-built drawings didn't reveal the full story. Stellar used 3D laser scanning technology to measure present conditions and make accurate decisions when designing upgrades.

Once the construction crews began selective demolition, they discovered a number of challenges, including asbestos and lead that had to be abated and load-bearing walls that required reinforcement. Stellar worked closely with the U.S. Army Installation Management Command (IMCOM) to identify alternative design and cost options to focus on the project's most critical priorities while remaining within budget.

The project also required flexibility from the construction field team who had to manage unforeseen conditions throughout the project, including:

- Roof repairs to resolve active leaks
- New site drainage modifications to eliminate existing flooding issues
- Structural analysis of old fire damage at existing support beams
- Repairs/modifications of severely corroded structural metal wall framing
- Replacement of existing non-code-compliant electrical panels
- Replacement of existing undersized water supply lines servicing bathrooms and bar areas
- Replacement of severely deteriorated HVAC ductwork insulation in numerous locations throughout the facility
- Structural modifications to undocumented in-wall structural steel to facilitate installation of new storefront systems

During construction, the Stellar team coordinated with base personnel to allow planes from an adjacent outdoor air museum to be shuttled through the job site for display at the annual Miramar Air Show. This involved planning work activities to enable safe movement through the site before and after the show. The site was also secured during the show.

2 A SOARING ENTRANCE & REIMAGINED KITCHEN

Stellar designed and constructed a 1,350-square-foot addition to the building to serve as its new main entrance. The design team created a spacious entryway inspired by the shape of an aircraft wing, paying homage to Miramar's rich history as an aviation center in San Diego that dates to Charles Lindbergh, who practiced there before his historic transatlantic flight from New York to Paris in 1927.



In addition, Stellar modernized the facility's commercial kitchen by completely removing the kitchen slab to accommodate supporting utility infrastructure, demolishing select walls to facilitate a new floor plan layout, adding a new dry storage area, building out of new walk-in coolers & freezers, and installing all new industrial kitchen equipment and all new ceiling, wall and flooring finishes. During the underground rough-in of the existing kitchen space, the original existing cast-iron grease waste piping and sanitary pipes had so heavily deteriorated that entire segments of pipe wall were caving in. Other areas of pipe had extreme blockage from years of buildup, while other areas had inadequate drainage resulting in standing waste.

As a result, Stellar innovatively redesigned the entire waste system during construction to replace old, failed pipes and identified new tie-in points to preserve the longevity of the existing plumbing infrastructure. During this process, crews discovered an undocumented concrete-encased active electrical bank in the kitchen, which mandated the secondary electrical feeds be intercepted, removed and then relocated overhead to a new electrical panel to avoid conflict with the underground plumbing rough-in. After replacing piping and modifying points of connections, the rest of the kitchen remodel was able to resume.



The newly renovated 4,500-square-foot kitchen is not only more efficient in its layout, but its modernized equipment also boasts greater energy efficiency. In addition, this larger space can now also function as a banquet kitchen with enough capacity to cater off-site events, resulting in a higher return on investment.

1,350 sf designed & constructed **MAIN ENTRANCE** addition

4,500 sf banquet capable, energy efficient, modern **KITCHEN**



WOXOF (pronounced "walks-off") Room: the most iconic part of the Officers' Club, is an aviation term that stands for "Weather Obscured Zero Visibility and Fog."



3 KEEPING THE "TOP GUN" BAR IN TOP SHAPE

Stellar renovated two of the club's bars that support the many events and functions at MCAS Miramar: the Main Bar and WOXOF Room.

The Main Bar is the largest of the two, but its floor plan no longer met the needs of the end user. It housed an antiquated bar and outdated food service equipment. The space was in desperate need of a more functional floor plan to accommodate customers, and it also lacked a modern design. In addition to opening the existing floor plan, the Stellar team updated many of the bar's features, including:

- New front and back bar with supporting bar equipment
- Food prep room with supporting kitchen equipment
- Beer cooler
- New ceilings
- New flooring finishes
- LED-backlit 3form panels on the front of the bar to create a warmer and more inviting space

The private bar area, known as the WOXOF (pronounced "walks-off") Room, is the most iconic part of the Officers' Club. WOXOF is an aviation term that stands for "Weather Obscured Zero Visibility and Fog," represented in the room by a large low-hanging cloud structure. The space is known affectionately by service members as the "Tom Cruise Bar" — but it was starting to show its age. Stellar upgraded the bar's design and functionality while thoughtfully dispersing some of the room's famous memorabilia throughout the building while retaining the iconic cloud ceiling.

4 BUILDING TO MEET FIRE SAFETY & SEISMIC REQUIREMENTS

Another major project focus was upgrading the safety of the Officers' Club and ensuring it met California's fire safety and seismic requirements.

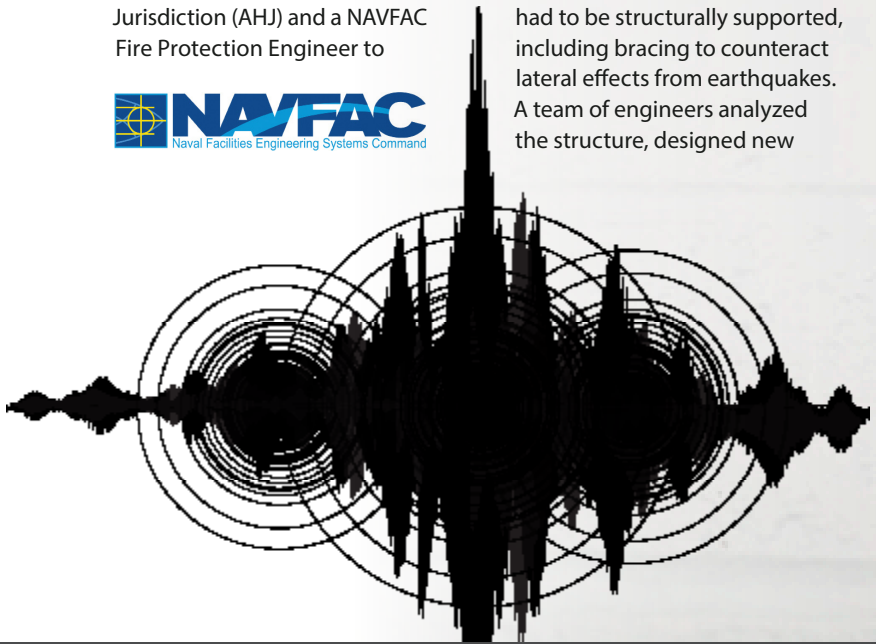
Stellar retrofitted the building with new fire alarm and fire protection systems — but that's easier said than done in a decades-old facility. There was no way to hide the entire system without compromising existing structural members and renovating all the ceilings, which countered the goal of maintaining the Club's aesthetics as much as possible. Instead, Stellar worked with the Local Authorities Having Jurisdiction (AHJ) and a NAVFAC Fire Protection Engineer to develop a creative solution: Rather than painting it red, the AHJ allowed the system's main line to be painted white with a less noticeable red stripe, which still identifies it as a sprinkler line while allowing it to blend seamlessly with the room's design. This exemplifies a Stellar best practice: collaborating with permitting agencies to work out solutions that maintain the intent of the requirements while still helping clients attain their goals.

A new fire protection system also required the addition of fire main and branch piping. These elements applied new loads that had to be structurally supported, including bracing to counteract lateral effects from earthquakes. A team of engineers analyzed the structure, designed new elements and improved existing connectivity. The process included a comprehensive roof collateral load analysis, which identified deficient framing and provided a targeted reinforcement approach.

Seismic upgrades were implemented to enhance the connectivity of the existing load path, including improved connections of existing structural elements (such as walls) to foundations and roof diaphragms.

Other improvements addressed ADA access, including new exterior ramping and accessible restrooms. New floor and wall finishes, furnishings, plumbing fixtures and lighting were key elements addressed to update these spaces.

NAVFAC Naval Facilities Engineering Systems Command





A STELLAR BEST PRACTICE:
collaborating with permitting agencies to work out solutions that maintain the intent of the requirements while still helping clients attain their goals.



5 A HISTORIC EVENT SPACE BROUGHT INTO THE MODERN-DAY

Since the completion of the renovations at the Officers' Club at Miramar, guests have been impressed by the refreshed elegance of the space, particularly the bar areas. The kitchen and wait staff, meanwhile, are thrilled to have a brand-new facility that makes it easier to provide great service.

MCAS Miramar has been an institution in the United States Marine Corps for many years and its Officers' Club remains a favorite gathering area. Despite some unforeseen issues, Stellar was able to use the design-build delivery method to successfully implement key renovations.

"The design-build approach was **critical to this project.** It would have been nearly impossible to provide a completed design to a separate construction team because there were too many unknown, unforeseen and unique conditions. With an integrated team, we were able to easily adapt to changes, resolve project hurdles, stay within budget and complete renovations that modernized the Officers' Club while honoring its rich history."

— Tony Lamell, AIA, NCARB, former Vice President at Stellar