PROJECT CASE STUDY / FEDERAL · AVIATION

Air Traffic Control Tower
Air Force Plant 42

Palmdale, California · U.S. Army Corps of Engineers, Los Angeles District

Prime Contractor: Stronghold Engineering



Commissioning day at the tower access point. Automated cantilever gate, barrier arm, signalling and control equipment — In-Line's crew on site with the government's people, cycling it until it ran the way it had to.

160 ft
Tower height, 14 floors

$17M
Total project value

80,000+
Labor hours, zero lost-time incidents

Nov 2022
Dedicated

OWNER

U.S. Air Force / U.S. Army Corps of Engineers

PRIME CONTRACTOR

Stronghold Engineering, Inc.

IN-LINE ROLE

Perimeter security, gates & access control subcontractor

SUBCONTRACT

Executed June 2021

COMPLETED

2023

SAFETY STANDARD

EM 385-1-1

THE PROJECT

Air Force Plant 42 in Palmdale is where the country's most advanced aircraft are built and flight-tested. In 2020 the Air Force replaced its aging control tower with a new 160-foot, 14-story facility — a $17 million project managed by the U.S. Army Corps of Engineers, Los Angeles District, and built by Stronghold Engineering.

The tower itself is the landmark. But a control tower on an active flight-test installation is only as secure as the line around it, and the Corps specified perimeter security, vehicle gates and access control as an integral part of the facility — not an afterthought bolted on at the end.

Stronghold brought In-Line in for that scope.

WHY IT WAS HARD

Working inside a restricted federal installation

Every man on the crew, every vehicle, every delivery and every piece of equipment had to be cleared and escorted under installation access procedures. Material could not simply be dropped at the curb. Dig permits, delivery routes and laydown areas were approved in advance and adhered to. Schedule float does not exist when a crew cannot get through the gate without a badge.

EM 385-1-1, not Cal/OSHA

Corps of Engineers projects run to **EM 385-1-1**, the Army safety manual — a materially stricter standard than state requirements. In-Line submitted a project-specific fall protection plan, Activity Hazard Analyses for each phase of work, a chemical inventory, and competent-person documentation before a crew set foot on site. Across the whole tower project, **more than 80,000 labor hours were worked with zero lost-time incidents**.

Security systems that had to actually integrate

The gates and pedestrian entries were not standalone hardware. They tie into the installation's access control system, which meant In-Line's work had to land exactly where the electrical and controls contractors expected it, to the tolerance the readers and operators require. Conduit and power came from others; the connection, alignment, commissioning and functional testing were In-Line's.

Scope that moved with the design

The gate configuration changed during construction — a turnstile at the parking lot was deleted, a swing gate was added, and a cantilevered gate system was engineered and priced as a separate option after award. In-Line carried each change through pricing, submittal and installation without disrupting the tower's completion date.

WHAT IN-LINE DELIVERED

- **Automated vehicle gates and operators** — supplied, installed, commissioned and functionally tested, including a cantilevered gate system engineered after award.
- **Security drop arms** — installed and relocated as the site circulation plan developed.
- **Pedestrian access control** — personnel turnstile and an ADA-compliant pedestrian gate, both integrated with the installation's card reader, keypad and intercom systems.
- **Perimeter chain link fence and gates** around the tower, mechanical building, parking and service areas.
- **Site security features** — bollards and a screened dumpster enclosure with gates and privacy slats.
- **Full federal safety and submittal compliance** — EM 385-1-1 fall protection plan, Activity Hazard Analyses, competent-person documentation, chemical inventory, dig permits, and approved delivery and laydown plans.

SCOPE AT A GLANCE

Automated vehicle gates | **Cantilevered gate system** | **Gate operators & commissioning** | **Security drop arms** | **Personnel turnstile** | **ADA pedestrian access control** | **Perimeter chain link** | **Bollards & enclosures**

THE RESULT

The new Plant 42 Air Traffic Control Tower was dedicated on **30 November 2022**. It now controls the airspace over one of the most sensitive aerospace facilities in the United States — and the line around it, the gates through it, and the credential check at the door are In-Line's work.

In-Line has since been retained on the tower's gate systems beyond installation, servicing and supporting the equipment it put in.

A general contractor building a $17 million federal tower does not hand the security line to whoever bid it cheapest. They hand it to the sub who will clear the badging, pass the EM 385-1-1 review, and still be answering the phone two years after the ribbon is cut.

Note: Specific security product models, crash ratings, device configurations and site photography are deliberately omitted from this page. Detail is available to qualified parties through controlled disclosure.

WHY PRIMES KEEP CALLING IN-LINE

Since 1990, In-Line has been the fence, railing and security subcontractor Southern California's largest primes hand their most exposed scope to. Not because we are the cheapest number on bid day — because we are the one line item they never have to think about again.

- **Restricted sites are normal here.** Badging, escorts, approved delivery routes, dig permits, controlled laydown — we have run this on Navy, Air Force and Corps of Engineers work.
- **We meet the federal safety standard, not the minimum.** EM 385-1-1 plans, Activity Hazard Analyses and competent-person documentation submitted before mobilization, every time.
- **We commission what we install.** Gate operators and access control get tested, adjusted and proven — not dropped off and invoiced.
- **We stay after closeout.** Warranty registration, service and support on the equipment we put in. The relationship does not end at final payment.
- **We are certified, bonded, signatory, and safe.** DBE · SBE · SLBE · SB · HUBZone · SBA 8(a). Union affiliated, Local 89 & Local 12. CSLB C-13, C-51, C-32. Bonded through Old Republic Surety, rated A+ XV. **EMR 0.68.**

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