



*From design to delivery,
we're committed to
your success.*

Experience:

Cape Design Engineering Co. (CDE), founded in 1997 on Florida's Space Coast, is a Certified Women's Business Enterprise (WBE) specializing in full-service MEPS and civil engineering, project design, administration, and continuing services. Our engineers have designed and constructed precision, mission-critical infrastructure for NASA and the USAF—most still in use today. With a commitment to expertise, trust, and excellence, CDE delivers quality, reliability, and client-focused solutions across commercial, educational, medical, institutional, military, and government sectors.

CDE is a wholly-owned subsidiary of 8-koil®, an Asian-Pacific American Owned, EDWOSB.

UEI: LL1UFXPkHT37 | Cage Code: 1KB78 | FL Engineering Lic: 8072

Mechanical Engineering

- HVAC & Thermal Energy Storage
- Plumbing & Fire Protection Design
- Systems & Chiller Plant Design

Electrical Engineering

- Lighting & Voltage Systems
- Power Generation & Grounding
- Lightning Protection & Fire Detection
- PV Systems Integration

Structural Engineering

- Steel (Heavy/Industrial/Light)
- Aluminum
- Concrete (Pre-Cast, Cast-In-Place)
- Masonry

Energy Conservation

- Energy Audits & Upgrades
- Sustainable & Conservation Design

Studies and Analyses

- Wind, Seismic, Failure Analysis
- Forensic Engineering

Specialized Services

- Launch Structures & Platforms
- Explosive & Blast Design
- 3-D Modeling & Ground Support Equipment
- Investigative Studies



Key Differentiators

- ✓ **Experienced Team:** Qualified professional engineers, structural designers, and project managers delivering energy-efficient, high-quality projects.
- ✓ **Comprehensive Support:** Full CAD/BIM support staff and a dedicated cost estimator.
- ✓ **Certified Quality Control:** USACE CQM certified QC reviewer.
- ✓ **Established History:** Founded in 1997, with a deep-rooted history in space programs and extensive experience across commercial, industrial, and government sectors.
- ✓ **Diverse Expertise:** Specialize in designing critical launch systems, commercial, educational, medical, and military facilities.

CONTACT US

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OUR CLIENTS



PAST PERFORMANCE



NASA Space Station Processing Facility | Design/Build Science Annex

CDE performed the Design/Build of a biological science laboratory facility at the SSPF, encompassing site civil, architectural, structural, electrical, mechanical, plumbing, process piping, controls, fire detection and protection, and data systems. The building and systems were modeled using BIM. LEED Silver® certification was achieved through the use of high-efficiency roofing, energy-efficient equipment, variable frequency drive motors, LED lighting, occupancy sensors, and a building control and automation system. The facility actively supports scientific research for the International Space Station (ISS).



Eastern Florida State College | CHW System Upgrades for Melbourne Campus

CDE evaluated the impact of adding approximately 120,000 square feet of new buildings on the chilled water (CHW) and hot water systems. CDE designed modifications and additions to the chiller plant, including a new parallel loop on the campus's south side, a separate pumping system for future buildings, and a new cooling tower to enhance capacity. Challenges with the condenser water system were addressed by creating an outdoor pumping system and designing an open enclosure with a roof to mitigate tower spray and corrosion.



Cape Canaveral Air Force Station | Design SLC-46 Lightning Protection System

CDE provided comprehensive electrical design for the Lightning Protection System (LPS) and beacon lights at Cape Canaveral Air Force Station. This included power, grounding, and bonding in compliance with code requirements. The project involved transient load analysis for the catenary LPS and the design of a structural steel tower with a fiber-reinforced plastic (FRP) mast. CDE also managed submittal reviews, RFIs, field observations, test result verification, and FRP mast manufacturing inspections.



Daytona State College | Design of the Mori Hosseini Center

CDE designed the 66,000-square-foot Mori Hosseini Center at Daytona State College, which includes large presentation galleries, exhibit areas, commercial kitchens, a dining lab, a 500-person banquet facility, hotel rooms, and classrooms for Culinary & Hospitality Management programs. CDE provided structural, mechanical, electrical, plumbing, and fire protection design. The firm provided construction administration and support services during the construction phase, ensuring adherence to high-quality standards.



Daytona State College | Thermal Energy Storage System

CDE studied and implemented a Thermal Energy Storage (TES) system for Daytona State College. After evaluating ice storage and chilled water storage options, CDE recommended a 2.5-million-gallon chilled water tank due to its superior energy cost savings and lifecycle benefits. CDE oversaw the design, commissioning, and integration of the system, which now saves the college over \$200,000 annually and has secured more than \$1.1 million in incentives from FPL.



Kennedy Space Center | NASA kA Band Antenna Array

CDE managed the Design/Build of the kA Band Antenna Array at Kennedy Space Center. The project involved constructing three concrete mat foundations in a 60-meter triangle, a central concrete pad for antenna monitoring equipment, and a command center. CDE provided full civil, structural, and electrical design, including utility installations (potable water, sewer, power, communications, fiber optics), fire alarm systems, lightning protection, grounding, and HVAC for the antennas. The design adhered to Florida Building Code requirements with concrete footings supported by augercast piles.