



Industrial Projects

Innovative Design. Solid Construction. Lasting Relationships.

Aerex Industries

Industrial Manufacturing Facility

CKA provided Engineering and Construction Management services for this State-of-the Art Industrial Manufacturing Facility. This industrial structure was custom designed and built to meet the client's needs to incorporate two 25-ton bridge cranes and twenty-four 2-ton jib cranes. The building is of steel construction that is incorporated into and adjacent to an existing site and building respectively. The owner is a renowned manufacturer of equipment, piping and appurtenances for the water and wastewater industry. This project is exemplary of the firm's ability to provide services of smaller proportions to our growing client base.

Owner: Aerex Industries, Inc.

Size: 11,900 Sq Ft
Manufacturing Center

Scope: Construction
Management

Cost: \$650,000

Pratt & Whitney

Manufacturing Building Improvements

CKA provided structural and mechanical design, and construction management for this very visible project within the corporate framework. Pratt & Whitney has recently undergone a major renovation of the west end of the manufacturing building to facilitate the assembly of new aircraft to be built under a federal contract.

Owner: Pratt & Whitney

Size: 28,000 Sq. Ft.

Scope: Design & Construction
Management

Cost: \$3,500,000

Aerex Industries

Filter Press & Simplex Pump Station

CKA provided General Contracting services for the installation of a simplex pump station and filter press. This project was constructed to remove the sludge off the bottom of large acid tanks used in the pickle and passivation of large stainless weldments. The installation of this process mechanical system facilitates longevity of the acid far beyond what was previously realized.

Owner: Aerex Industries

Size: Simplex Pump Station &
Filter Press

Scope: General Contractor

Cost: \$48,000



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Pratt & Whitney

Remote Test Site Compressor Building

CKA provided structural, mechanical, electrical, site civil design and construction management for the construction of a new compressor building at the existing secret remote test facility. Pratt & Whitney operates an infrared and radar signature testing facility that was in need of additional mechanical and structural facilities expansion. CKA provided the listed services as engineer of record for this expansion.

Owner: Pratt & Whitney / Rocketdyne

Size: 284 Sq. Ft.

Scope: Design, Permitting, Construction Management

Cost: \$112,000

Wellstar Health Systems, Marietta GA

Laundry Water Recycle System

CKA provided process mechanical, electrical, instrumentation system design and procurement services for a 175 gpm laundry washwater recycling system. The Wellstar Health Systems Laundry is a centralized commercial laundry plant contracted to five major hospitals in the Atlanta, GA area. This recycling system is the first of its kind to be utilized in this industry. The system is entirely automated and incorporates UV disinfection, and thermal energy management system. This design has been submitted for patent and plans for marketing and reproduction throughout the country is anticipated. This project was publicized worldwide on "CNN Headline News" for the innovative water conservation application.

Owner: Wellstar Health Systems

Size: 175 GPM Laundry Washwater Recycle System

Scope: Process Mechanical / Electrical / I&C Design and Procurement

Cost: \$245,000

Power Generation System

Patent Received

CKA provided assistance to the inventor, John Dubois, to identify the design and components necessary to extract energy out of abandoned mine shafts using the encased thermal heat energy and underground water flow. CKA was contacted by the "inventor" to assist in the creation of a design invention for a power extraction device utilizing, to date, uncapped potential energy lying below the surface in abandoned mine shafts. The design criteria set forth in our work led

Owner: John Dubois

Size: Varies

Scope: Consulting

Cost: Consulting

Red, White, Blue & Green, LLC

Christopher Karch, PE, through a subsidiary firm, Red, White, Blue & Green, LLC designed a Metering Electrical Car Charging Station with Integrated Expense Tracking and Invoice Capabilities that received a US Patent on May 28, 2013. Christopher Karch, PE, owner of CKA is the "inventor" of the above described device originally intended to serve the commercial hotel/motel industry and the municipal parking garage industry. The system includes the monitoring, tracking, and invoicing to host computers such as that used in a hotel to streamline and facilitate the invoicing of electrical energy for cars with a typical hotel invoice.

US Patent No. 8,452,661 B2
Received

Owner: Christopher Karch, PE

Size: 120V / 230V

Scope: Automated
Computerized Car Electric
Charging Station

Pratt & Whitney

E-Area Classified Storage Building

CKA provided general contracting for this state of the art custom high-bay metal building for top-secret classified hardware storage located in Jupiter, FL. Pratt Whitney / Rocketdyne, a joint venture corporation engaged in the design and fabrication of military and space propulsion systems contracted with CKA to provide a turn-key construction project for their top-secret classified use. This storage facility was delivered turn-key to the owner and constructed from de-grubbing to lights on in 8 weeks. The foundation slab was complex in that an integral monolithic curb was constructed. The shell of this building took all but 13 days from de-grubbing to finish fascia, doors, and trim. The remaining time was spent on interior electric, fire suppression, alarm, and classified monitoring systems.

Owner: Rocketdyne

Size: 4,000 Sq. Ft. Custom
Metal High-Bay Storage
Building

Scope: General Contractor

Cost: \$725,000