

ARCHITECTURE AND ENGINEERING SERVICES



ARCHITECTURE

Facility Expertise

- Industrial
- Commercial
- Education: K-12 / Higher Education
- Multi-Family
- Corrections

Architectural Programming

Interior Design

- Interior Finishes, Repair & Replacement

Furniture, Fixtures & Equipment

Security Consulting

Facility Assessment & Recommendation

System Analysis & Recommendation

Wet & Dry Floodproofing / Mitigation Measures

ENGINEERING

Mechanical

Electrical

Plumbing / Fire Protection

Structural

- Structural Assessments & Recommendations

Civil

- Water & Wastewater Engineering
- Stormwater Facilities
- Stormwater Management
- Water Resources
- Dams & Waterways
- Demolition Consulting
- Land Development
- Erosion & Sedimentation Controls
- Brownfield Redevelopment
- Solid Waste Consulting
- Railroad Sidings

Transportation

- Highway & Bridge Design
- NBIS Bridge Inspection
- Traffic Analysis
- NEPA Documentation
- Airport Planning & Design
- Construction Inspection

Geosciences

- ALTA Surveying
- Digital Aerial Photography
- GPS & Land Robotic Surveys
- Geotechnical Drilling & Subsurface Investigations
- Geophysical Subsurface Surveying & Utility Locating
- Geotechnical Engineering & Resource Management
- Environmental Soil & Groundwater Investigations
- Stability Analysis

CONSTRUCTION PHASE SERVICES

Construction Inspection

Construction Contract Administration

Program Management

Procurement

REBUILDING AFTER A DISASTER



DESPITE THE NEED TO SWIFTLY RESTORE BUSINESS AS USUAL, THE POST-DISASTER ENVIRONMENT IS AN OPPORTUNITY TO BUILD RESILIENT INFRASTRUCTURE THAT CAN WITHSTAND THE NEXT CATASTROPHIC EVENT.

Buildings, bridges, roads and transportation systems must be constructed to survive intense, more frequent storms that are all but inevitable. This vital work requires rapid assessment, design and execution, managed costs and highly-skilled technicians. This is CDI / L.R. Kimball.

CDI / L.R. Kimball provides design / build and phased construction projects through integrated project delivery, transparent and highly ordered client management systems, and extensive experience with expedited construction. Buildings and infrastructure are the backbone of the firm's work, including disaster remediation and helping clients to secure funding from the Federal Emergency Management Agency.

EXAMPLES

The following are several examples of the firms' disaster rebuilding projects:

Funding Support and New Construction Plaquemines Parish, Davant, LA (FEATURED ABOVE)

In 2005, Hurricane Katrina flattened the Davant Detention Center. The Parish began the process of pursuing funding and engaged CDI / L.R. Kimball to assist with the preparation of FEMA documents and to design a new facility. The new structure was built on an elevated platform approximately 19 feet above grade to raise it above flood elevation.

Funding Support and Restoration Danville Middle School, Danville, PA

When the Susquehanna River overflowed its banks in 2011, the Danville Middle School filled with water. CDI / L.R. Kimball provided extensive field investigations and funding documentation to secure state and federal resources, and the restoration was completed under an expedited schedule. Brought up to current ADA, building systems and security standards, the school was also designed to withstand anticipated future flood events.

Flood Damage Repair and Cost Oversight Williamsport Airport, Williamsport, PA

Hurricane Ivan hit the Pittsburgh area hard in 2004, flooding the airport for days after the event. CDI / L.R. Kimball completed an assessment of damage to the airport, including assessing the landing strips and safety areas, developing a remediation plan, and assisting with funding requests to FEMA. Work also included negotiating contractors' fees and inspecting all repairs.

RAPID RESPONSE SERVICES



EXCELLENCE IN ENGINEERING

CDI Engineering Solutions specializes in a competitive, flexible and responsive approach to project execution. CDI employs proven project execution strategies and tools to right size our strategies and resources for accomplishing any particular task or series of tasks on a project. This standard execution strategy is used to maximize CDI's efficiency in handling the various project needs when limited client engineering resources are available. This execution model sets us apart from our competition.

CDI's marine team has extensive experience assessing damaged structures and quickly working with contractors to develop solutions that uniquely fit the client's needs. Whether it's stabilizing a compromised sheet pile structure due to erosion, redesigning a damaged floating liquid loading facility, expediently designing a retrofit solution for a damaged pipe or roadway bridge, or providing a temporary berthing and mooring solution to continue operations after existing structures have been severely damaged, CDI can minimize down time and help to get your facility back up and running in as little time as possible.

EXAMPLES

The following are several examples of the firms' disaster rebuilding projects:

Marine Damage Recovery Carville, LA

A hurricane on the Gulf Coast caused a floating dock to capsize thereby destroying the attached pipe bridge and disabling river water intake systems. CDI mobilized experienced marine engineers to design river water intake systems for short-term use while designing an improved dock structure.

Refinery Rebuild Convent, LA

CDI assembled a taskforce of 100 engineers, designers and procurement personnel to redesign a refinery unit on the Gulf Coast after a major fire caused millions in damage. The rebuild included over 100 lines, unique metallurgy and an ever evolving scope as damage was discovered. A "Global Tracker" was used to publish the step-by-step progress of every scope of work defined by the field investigation team. Laser scanning was used extensively to properly capture "as-is" conditions while minimizing time on site. The engineering and procurement activities on this major project were successfully completed in only 4 1/2 months.

Backup Power Carville, LA

CDI engineered a backup power generation system for plant controls after the Gulf Coast experienced widespread power outages resulting from a hurricane. The system included automated switching and fed critical systems including a control room to be used as a command center in future disaster recovery events.