









# The Walker Associates, Engineers-Planners-Designers, PLLC

is a consulting engineering firm founded in 1985 and based in Hattiesburg, Mississippi. The firm is a full services civil engineering and design firm consisting of eleven highly skilled professionals with combined experience of over 130 years. We have expertise in the areas of site planning, layout and design, sewer and water design and treatment, storm drainage analysis, highway engineering, soils engineering, structural analysis and design, traffic engineering and transportation planning, land surveying, construction surveying, computer modeling, planning and mapping.

Our firm has completed over 3,100 diverse projects with governmental, industrial, and private entities. Our firm utilizes state of the art 3-dimensional design and drafting systems to provide the best, most cost effective, design possible. Our project experience includes design and construction observation for the following types of projects:

- Site Planning & Design
- Parking Lots
- Pavement Design
- Storm Water Collections Systems
- Storm Detention Design
- Retaining Wall Design
- Industrial Park Master Planning
- Subdivision Development
- Pedestrian & Bicycle Paths
- Airfields
- Roadways
- Traffic Signals
- Pre-cast Concrete Span Bridges
- Pre-stressed Concrete Beam Bridges
- Steel Truss Bridges
- Bridge Maintenance
- Bridge Inspection by Certified Inspectors
- Box Culverts
- Pipe Culverts
- Water Mains

- Water Systems
- Gravity Sewer Mains
- Low Pressure Sewer Force Mains
- Sewer Lift Stations
- Sewer Lagoons & Treatment
- Water Wells
- Water Treatment Plants
- Water Elevated Storage Tanks
- Computer Modeling of Water Systems
- Storm Water Management
- Formal Dam Inspections
- Dam Hydrology Studies
- Drainage Channel Computer Modeling
- Traffic Engineering
- Transportation Planning
- Traffic Studies
- Land Surveying
- Construction Staking
- Flood Elevation Certificates
- Phase I Environmental Assessments
- Soil Engineering

## **S**ummary Client List:

- Lamar County, Mississippi
- Perry County, Mississippi
- Mississippi Military Department
- City of Purvis, Mississippi
- Town of Sumrall, Mississippi
- City of Poplarville, Mississippi
- Forrest General Hospital
- Hattiesburg Clinic

- Area Development Partnership
- Various Architects
- Numerous Local Water Associations
- Numerous Local Homeowner Associations
- Longleaf Rails-to-Trails
- University of Southern Mississippi











## SITE DESIGN & PLANNING

Our firm has designed and overseen construction for numerous site design and planning projects including the following types of projects:

- Master Planning
- Healthcare Facilities
- Religious Facilities
- Recreational Facilities
- Industrial Park Master Planning
- Subdivision Development
- Airfields

- Military Installations
- Parking Lots
- Paving Design
- Drainage Design
- Storm Detention Design
- Retaining Wall Design
- Pedestrian & Bicycle Paths

#### **SAMPLE PROJECTS**

## Hattiesburg Clinic, Dermatology South - Hattiesburg, MS

Dermatology South is a 16,350 s.f. medical clinic facility. Our staff provided civil design services for site related items with the project architect. The site consists of a 100 vehicle concrete parking lot with associated storm drainage design. Project designed/constructed in compliance with the City of Hattiesburg Land Development Code.

## Pedestrian and Bicycle Plan - University of Southern Mississippi - Hattiesburg, MS

The Walker Associates was selected from a list of five (5) statewide firms to develop a Pedestrian and Bicycle Plan for the University of Southern Mississippi. The project was funded through an Enhancement Program with the Mississippi Department of Transportation and consists of developing bike and pedestrian paths in accordance with MDOT and ADA requirements.

## **Lamar County Fire Stations Project (Katrina GoZone CDBG Funded)**

In 2007, The Walker Associates contracted with the Lamar County Board of Supervisors to perform project management and civil engineering services for a federally funded Community Development Block Grant to construct a total of thirteen fire station facilities across Lamar County in an effort to improve fire protection services. Our firm was responsible for boundary and topographical surveying of each site, necessary permitting regarding ingress/egress with State Department of Transportation as well as on-site sanitary sewage systems coordinated with the MS State Dept. of Health, site grading plans, site plan review correspondence with local government, utility connections with various service providers, construction staking, and general construction management. The project developed into a series of eight contracts which were awarded within a four month period having a construction period of 14 months.









## **ROADS & BRIDGES**

Our firm has designed and overseen construction for numerous road and bridge projects and has two NBIS certified bridge inspectors on-staff. Our certified inspectors perform approximately 300 bridge inspections on a bi-annual basis for public, private, and government owned bridges.

Our roadway and bridge design/construction experience includes the following types of projects:

- Multi-lane Roadways
- Traffic Signals
- Intersections
- Pre-cast Concrete Span Bridges
- Pre-stressed Concrete Beam Bridges
- Steel Truss Bridges
- Bridge Painting
- Bridge Maintenance

- Bridge Inspections by Certified Inspectors
- Bridge Scour Analysis
- Box Culverts
- Pipe Culverts
- Erosion Control Design For Roadway Construction
- Transportation Planning
- Traffic Studies

#### **SAMPLE PROJECTS**

#### Perry County Bridge Replacement Program - Perry County, MS

In 2010, our firm contracted for design and construction observation for repair/replacement of 25 bridge structures throughout the county as well as repair/replacement of 25 culvert structures. The value of the project for work completed at all locations was \$6,000,000. The different structures range in size from a 54" diameter reinforced concrete pipe to a pre-stressed concrete beam bridge consisting of a 60'-110'-60' span arrangement. This cast-in-place structure consisted of a special design having a single traffic lane to reduce cost. The program also included the repair and/or repainting of 12 structures. Perry County experienced numerous bridges in the inventory with steel piling having unsafe levels of section loss. As a result, a design was prepared that would allow for repairs to be made that consisted of removing and replacing the damaged piling while also installing additional concrete encasements to protect against further section loss.

## West 4th Street & Jackson Road (MS119-037(1)B) - Lamar County, MS

Our firm performed design and construction observation services for the reconstruction and widening of 1.2 miles of West 4th Street as well as the construction of 1.7 miles of new alignment along Jackson Road. This project included over 70,000 cubic yards of unclassified excavation to develop the new roadbed along Jackson Road.

The various sections of the routes consisted of several different styles of construction including 2 and 3 lane sections. The project warranted the installation of a new traffic signal which included video detection equipment as well as traffic pre-emption devices.

During the course of construction, our staff coordinated closely with the contractor to implement the use of Automated Machine Guidance. This effort resulted in a more efficient grading operation and prevented delays.

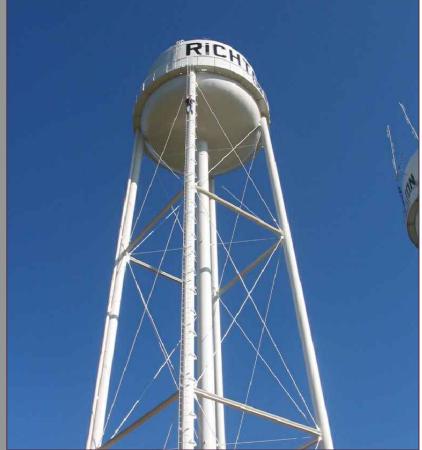












## **WATER & SEWER**

Our firm has been responsible for design and construction observation for numerous water and sewer projects ranging from small utility extensions to entire water system replacement. Our staff has the knowledge and expertise to handle any size water or sewer system project. Our project experience and expertise includes the following types of projects.

- Water Mains
- Water Systems
- Gravity Sewer Mains
- Low Pressure Sewer Force Mains
- Municipal Sewer Lift Stations
- Residential Sewer Effluent & Grinder Stations
- Sewer Lagoons & Treatment
- Potable Water Wells
- Potable Water Treatment Plants
- Potable Water Elevated Storage Tanks
- Potable Water Pneumatic Tanks
- Computer Modeling of Water Systems

#### **SAMPLE PROJECTS**

## Camp Shelby Water System Replacement - Camp Shelby, MS

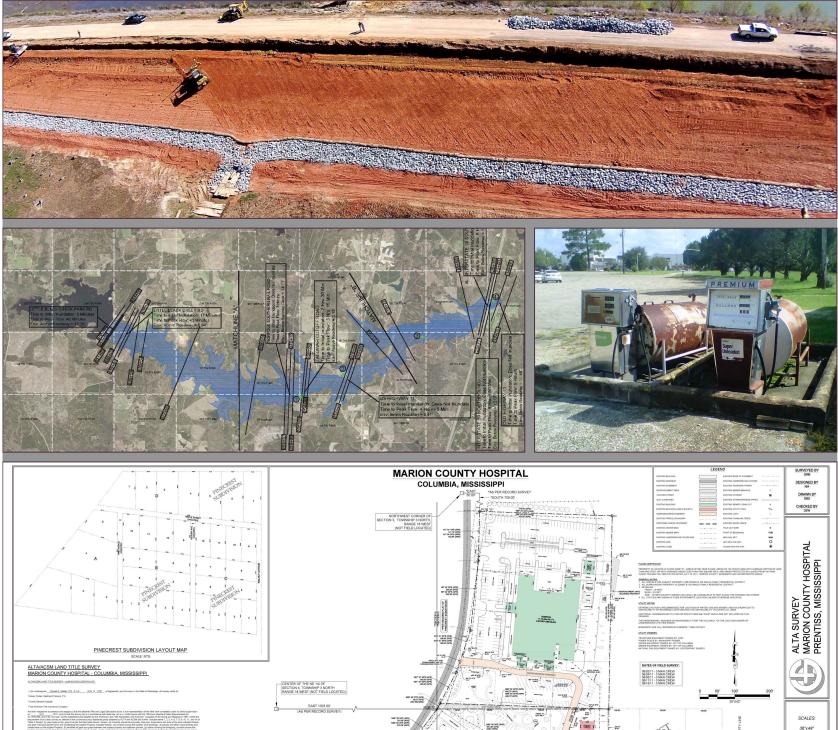
In 2002, our firm was selected for design and construction observation for replacement of the entire water system at Camp Shelby Joint Forces Training Center. The existing system had numerous reported failures and was in need of complete replacement. Our staff performed design and construction services for replacement of nearly all water mains and installation of a 600 gpm water well, 30,000 gallon treatment plant, 300,000 gallon elevated storage tank, SCADA system, backup generator, and control building. All existing wells, elevated tanks, and treatment plants were either taken out of service or placed on standby for emergency scenarios.

## Water & Sewer System Additions - Town of Richton, MS

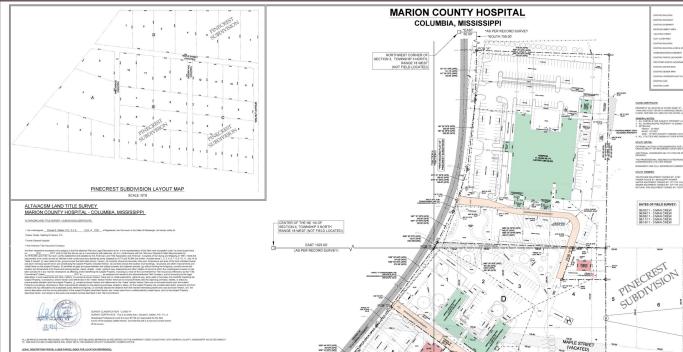
Our firm performed design and construction observation for a water and sewer system improvement project which consisted of approximately 6,500 l.f. of 8" gravity sewer, 28 manholes, 5 sewer lift stations with emergency generators, and 6,300 l.f. of 4" force main, 400 gpm potable water well, control systems, alarm dialer for water system, raw water feed line from water well to existing water treatment plant, and emergency generator for the water well. Funding for the project consisted partially of funds from the U.S. Army Corps of Engineers Section 592 Program and partially from the Mississippi Development Authority.

## Computer Model of Water System - West Lamar Water System, Lamar County, MS

Our firm utilizes computer modeling software for hydraulic modeling of water systems and performs such modeling for numerous clients. One such client is West Lamar Water Association which consists of 5 elevated tanks and 6 water wells operating on 5 separate locations with differing hydraulic grade lines. The computerized hydraulic model of the water system allows engineers to determine areas of low/high pressure, low/high system demand, analyze fire flows, analyze subdivision development, and recommend areas for the association to prioritize funds for upgrades to the water system.



SUBDIVISIÓN



2 SCOTTY M. & DESCRAHS, HUTTON

DEBRAM. SINGLEY

36"x48" 1" = 50"

REVISIONS

12/21/2011 ADDED PARCEL C D, AND INGRESS/ EGRESS EASEMENTS

SERIAL NO. 152-11 DRAWING NO 4309 1 OF 1

THE CONTROL IN CONTROL

# SURVEYING, DAM PROJECTS, ENVIRONMENTAL, & DRAINAGE SYSTEMS

Our firm performs boundary and topographic surveys, formal dam inspections (required for dams classified by MDEQ as High Hazard), dam hydrology studies, and drainage system projects on a frequent basis. Our project experience and expertise includes the following types of projects.

- Land Surveys (All Classes Including ALTA) Drainage Channel Computer Modeling
- Topographic Surveys
- Construction Staking
- Flood Elevation Certificates
- Formal Dam Inspections
- Dam Hydrology Studies
- Dam Spillway Capacity Analysis

- Drainage Channel Design
- Phase I Environmental Assessments
- Dam Breach Analysis & Emergency **Action Plans**
- Drainage Area Determination

#### **SAMPLE PROJECTS**

## Marion County Hospital ALTA Survey & Phase I ESA - Columbia, MS

Our firm was contracted by Forrest General Hospital to perform an ALTA survey and Phase I Environmental Assessment (ESA) on the Marion County Hospital in Columbia, Mississippi. The parcel consisted of the main hospital facility along with eight (8) office/maintenance buildings. The Phase I ESA was completed in compliance with ASTM E 1527-05.

## **Lake Serene North Lake Formal Dam Inspection - Lake Serene Homeowners** Association, Hattiesburg, MS

On October 16, 2013, a sand boil was discovered coming from beneath the principal spillway of the North Lake which had the potential to endanger the traveling public along US Highway 98. Our staff was contacted to perform emergency engineering services which included immediate notification of emergency response agencies and an engineering investigation to determine the severity of the sand boil. Our staff performed investigative services and monitored the condition for approximately one week while the water surface elevation of the lake was dropped to a level at which the threat would be minimized but not result in loss of aquatic life in the lake. Our staff then performed a Formal Dam Inspection in compliance with the Mississippi Department of Environmental Quality requirements to document all investigation findings and make recommendations for repairs.

For more information or to find out how we can assist you with your projects please contact one of our key personnel listed below:

## Donald Walker, P.E., P.L.S.

Owner Manager & Principal In Charge dwalker@thewalkerassociates.com

## Jason Lamb, P.E.

Principal jtlamb@thewalkerassociates.com

## Tim Brewer, RF PS

Survey Manager tim@thewalkerassociates.com

