



VOLKERT VIEWS



Winter 2010

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A TOLL LIKE NO OTHER

North Carolina's first toll will be like no other in the country. The Western Wake Freeway will ultimately offer an alternate route for the mass of workers commuting from the Apex and Holly Springs areas to Research Triangle Park.

The project was awarded to Raleigh-Durham Roadbuilders (RDR), a joint venture of Archer Western Contractors and Granite Construction Company. Volkert is providing the construction engineering inspection (CEI) for this massive \$446 million design-build project.

When completed in 2012, the 12.5-mile roadway will save commuters approximately 20 minutes per trip from the Holly Springs area to Research Triangle Park. The Western Wake Freeway is part of the Triangle Expressway, which is the first road in the United States to be built as an all-electronic toll road with billing by license plate. Tolls will be collected without the use of traditional toll booths. The computerized pre-paid toll collection system uses automatic vehicle identification (AVI) and video cameras with optical character recognition (OCR) capability. Vehicles are identified while traveling at highway speeds through free-flow toll zones. To pay the toll, customers can open a pre-paid account and use a transponder, which is a radio-frequency tag affixed to the vehicle's windshield. These tags are read by electronic readers attached to overhead gantries located at designated intervals along the freeway. Customers who choose not to use a transponder are detected at the toll zones by video cameras where a picture of their license plate is taken. These customers pay their tolls by establishing a pre-paid account or by receiving and paying their bill by mail.

"The volume of work that must be completed by the end of 2012 is significant so we must plan ahead to keep pace with the team's aggressive schedule," said Volkert's Raleigh office manager, Bill Moyers, P.E. "The opportunity to be co-located with the contractor and designer has been instrumental in fostering

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US 27 RECONSTRUCTION

With vehicular traffic projected to increase significantly within the near future, US 27 in Polk County, Florida, needed to be transformed from a four lane rural section to a six lane urban/suburban roadway. As designer for the three mile widening project for FDOT District 1, Volkert faced significant challenges with respect to the bridge reconstruction, drainage design, pond siting, and environmental issues.

The design included roadway widening to an urban typical section (30-foot raised median with three 12-foot travel lanes, 4-foot bike lanes and 8-foot sidewalks in each direction) for approximately one mile. The remaining two miles were designed as a suburban section with a 40-foot depressed median.

Structural improvements were integrated into the bridge reconstruction/replacement, extensive MSE walls and sheet piling. The reconstruction of twin 156-foot parallel bridges over the CSX railroad was required within the urban section and was designed in accordance with LRFD Bridge Design Code. The decorative bridge lighting incorporated extensive input from the community and local business associations in order to form a cohesive landscaping and hardscaping design for the project. The 97-foot single span replacement bridge is 139.5 feet wide carrying three 12-foot travel lanes in each direction with 8-foot outside shoulders and sidewalks.

Volkert's design provided significant economic savings by reducing the project development and environment study's (PD&E) number of recommended ponds from six to three by utilizing stormwater treatment located in ditches and compensatory treatment, utilizing offsite areas, to offset new pavement areas that could not be treated. The reduction of ponds resulted in substantial right of way savings and lessened the impact to the community.



Bridge over CSX Railroad



Central Avenue Intersection

Project Challenges

- Urban and suburban typical sections
- Innovative drainage and stormwater permitting
- Bridge replacement over railroad
- Three signalized intersections
- Sand Skinks - endangered species
- Landscape/hardscape coordinated with businesses and community groups

WILLIAMS EARNS CCM DESIGNATION

Traci Williams, who works in Volkert's Birmingham office, has reached a level in her profession that very few in Alabama can claim. She was recently recognized as a Certified Construction Manager (CCM) by the Construction Manager Certification Institute. The Institute administers the program, which is accredited by the ANSI/ISO/IEC 17024 Personnel Certification Accreditation Program, for the promotion of professionalism and excellence in the management of the construction process.

Williams is one of only nine professionals who have earned this honor in Alabama. Two other members of the Volkert team hold this distinction. They are Leon Barkan, vice president in Birmingham, and Steve McGill, quality assurance manager in Mobile.

"We're very proud of Traci for achieving this international recognition that is considered the pinnacle of professional certification in our field," said Barkan. "The fact that she spent a year of her life pursuing this honor indicates the determination and dedication that our clients and we at Volkert see every day."

Williams met the prescribed criteria with regard to formal education, field experience, demonstrated capability, and understanding of the required body of knowledge.



Williams has 13 years of experience in program and construction management. She is an Auburn University Building Science graduate and also holds certificates for Construction Specifications Institute's Construction Document Technologist and Certified Construction Contract Administrator.

HOMEcomings

What better way to celebrate the holidays and our 85th anniversary than to return home to the city of our birth. On September 1st, Volkert re-opened an office in New Orleans - five years after Hurricane Katrina wreaked havoc on the City's infrastructure.

Prior to Katrina, we had continuously operated an office in New Orleans since 1959. Over the years, we provided services for many high-profile projects, including design work for the approach bridges for the Crescent City Connection, Danziger Bridge, West Bank Expressway, Pontchartrain Causeway No. 2, and Interstate 610.

While we received strong encouragement from City leaders, current projects also dictated our return to the Crescent City. These include the U.S. Corps of Engineers' Inner Harbor Navigation Channel Surge Wall project near Lake Borgne, land acquisition services for the City of New Orleans and engineering services for Plaquemines and St. Charles Parishes.

Although Katrina forced us to leave, our professional team was back within 48 hours to assess damage to the I-10 Twin Span Bridge over Lake Pontchartrain. Since then, our CEI office in Slidell has provided construction engineering inspection (CEI) services on the project, which is the largest construction project LDOTD has ever awarded.

Volkert continues to grow our Baton Rouge office, where we are working on the I-12 Widening Design-Build project for LDOTD.

We are grateful for the opportunities to expand our business and appreciate the confidence our clients show in us year after year. Our Volkert team of professionals will continue to work hard to provide the quality services our clients deserve and expect.

We wish you all a happy, healthy and prosperous 2011!



T. Keith King

AWARDS

Jack Hodge received a Fellowship from the American Society of Civil Engineers and a lifetime membership at their 2010 spring meeting in Washington, DC. The ASCE award is presented to civil engineers to acknowledge their life work and achievements.

Volkert ranked #136 in the Top 500 Design Firms by *Engineering News-Record* (April 26, 2010 edition).

Business Alabama ranked Volkert as the largest engineering company in the state.

South Central Construction listed Volkert as the second largest design engineering firm in Alabama, Arkansas, Kentucky, Louisiana, Mississippi or Tennessee.

NORTH CAROLINA TOLL

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relationships and maintaining open communication between all team members. The Volkert team, led by Mike Cowan, has worked hard to build trust with all parties. We are excited to be part of the first toll project built in North Carolina."

The job includes blasting, earthmoving, grading, culverts, bridges, bridge removal, concrete and asphalt paving, greenways, underground conduit network, pavement resurfacing, erosion control, as well as water and sewer. It will feature aesthetic bridges, retaining walls, overhead sign supports and noise walls with a stone-and-brick theme that is common in Raleigh architecture. In all, 32 bridges will be constructed at 24 sites, including 10 mainline bridges over wetlands and four over major interchanges at US 64 and US 1.

"RDR is excited to have Volkert as one of our key team members on North Carolina's first toll road, which also happens to be the largest contract ever awarded by NCDOT," said Dave Moyar, senior project manager. "Obviously, this requires Volkert to maintain a large staff and requires tremendous organizational and management skills to ensure that the North Carolina Turnpike Authority's expectations are met. This design-build project requires independent CEI services performed under the direction of the contractor, with Quality Assurance services administered by the NCTA. Volkert has done a great job meeting the many challenges associated with this project and has been a solid partner to RDR."

Project Challenges

- Maintaining a safe work environment
- Environmental stewardship
- Recruiting and training technicians and engineers
- Communication between all team members
- Aggressive schedule
- High volume of required documentation
- Volume of testing required

DRIVING FORWARD FIVE YEARS AFTER KATRINA

In the five years since Hurricane Katrina ravaged the Mississippi Gulf Coast, D'Iberville, a city located six miles north of Biloxi, has witnessed unprecedented growth. With traffic volumes predicted to exceed 100,000 vehicles per day by 2030, the Mississippi Department of Transportation (MDOT) recognized that improvements to and around the I-10/I-110 interchange were critical.

Volkert was selected to conduct engineering and environmental studies for upgrades to the interchange in order to improve the safety and mobility of the traveling public, as well as adding capacity to meet the demands of future transportation.

"The Environmental Assessment for the I-10/110 Interchange needed to be performed efficiently and effectively in full compliance with all NEPA requirements. Due to their reputation for professionalism and efficiency, Volkert was selected for the contract," said Wes Stafford, MDOT's Environmental Project Manager. "Volkert began working immediately, meeting almost every milestone of the ambitious project schedule by performing the necessary design, resource agency coordination, public involvement and field work, and was able to provide the Final Environmental Assessment document within 15 months. I believe it was Volkert's approach to project management that made all the difference. The capable members of the Volkert team kept the lines of communication open to ensure clear communication throughout the duration of the project, helping to keep each project goal in clear focus. It was a true example of teamwork at its finest."

The project, which began as a planning study within the statewide environmental services master agreement, has evolved into a full design project consisting of adding an I-10 westbound to I-110 southbound flyover bridge, new split-diamond interchanges at Popps Ferry Road, D'Iberville Boulevard, and Lamey Bridge Road, along with widening of I-10 and several other local roads.

"The coastal Mississippi area was recovering from Katrina and the project setting was evolving. Close coordination was maintained with the cities of D'Iberville and Biloxi, as well as Harrison County. Public involvement meetings and public hearings were well attended," said N.D. "Skeeter" McClure, Volkert's Environmental Manager. "Overall there was community and public support with little adverse comments or objections. An Environmental Assessment/Finding of No Significant Impact, approved by FHWA, satisfied the NEPA and other environmental requirements. We consider this project to be highly successful from an environmental perspective."



I-10/I-110 Interchange in D'Iberville, MS

MILESTONES

50 Years



T. Keith King
(Mobile)

35 Years



Wayne Collins
(Mobile)

30 Years



Rodney Manasco
(Mobile)



Phan Tran
(Mobile)

20 Years

David Benton (Mobile)
Dan Teal (Tampa)
Theresa LeCroy (Mobile)
JoAnn Clark (Mobile)

Project Challenges

- Design for construction under traffic
- Retaining vertical clearance on I-10 widened areas with existing haunched girders
- Addition of new I-10 lanes between existing bridge piers
- Avoidance of Rudy Moran Park, a Section 4(f) property
- Adjustment of preliminary studies and design to account for new apartment development

HISTORIC NEIGHBORHOOD RESURRECTED AS DOWNTOWN DESTINATION

The H Street NE corridor was one of Washington, DC's earliest and busiest commercial districts. Since World War II, the corridor has suffered years of neglect, including devastation during the 1968 riots. But today, as part of the city's "Great Streets Initiative," this once thriving business and entertainment hub is recapturing its vitality.

In 2002, the District Office of Planning initiated a community-based effort to help revitalize the corridor. The goal was to develop a vibrant and diverse commercial and residential area, improve the efficiency of all transportation modes, and return life back to the H Street neighborhood.

District Department of Transportation (DDOT) brought Volkert on board to engineer the \$30 million improvements. With the idea that a new and improved streetscape would lure businesses back into the area, Volkert designed the reconstruction of a 12-block, one-mile section of roadway into a functional corridor that safely and efficiently integrates transit, vehicular and pedestrian traffic, and enriches the commercial, retail, and residential environment.

The design challenges were daunting. One major challenge addressed

by Volkert was to fit all infrastructure improvements within the existing, constrained area. This included replacement of underground water and gas lines, streetlights and traffic signals, drainage structures, sidewalks and pedestrian facilities. H Street also features innovative concepts, such as low impact development (LID) measures which help to reduce stormwater contaminants from entering the nearby Anacostia River. Public art complements the uniqueness of the area.

One of the first streetcar lines to be reintroduced in the District is part of the H Street project. As seen in Portland, Seattle, and Tampa, new streetcar lines improve commercial property values by up to 300 percent over increases in the rest of the city. And, they've proven to

decrease auto and bus congestion, as well as give identity to destination communities.



One-half of constructed roadway, which includes two travel lanes - one shared with streetcars, a designated parking lane, and a sidewalk area.



Street light poles feature artistic banner as neighborhood identifier.

"It's gratifying to witness the rebirth of a neighborhood and realize Volkert is playing a substantial role," said Cesar Vargas, project manager. "What we're doing has already reaped great rewards. The H Street NE revitalization has attracted the return of upscale restaurants, nightclubs and art galleries to the area."

The H Street project will be the first Great Streets Initiative to be completed when work wraps up in mid 2011.

Project Challenges

- Complex phasing in downtown commercial corridor
- Extensive utility conflicts
- Historic area considerations
- Inter-agency coordination and approvals
- Accelerated completion schedule
- Integrated new streetcar infrastructure
- Design coordination with adjacent projects



Volkert women will once again participate in the Women Build for Habitat for Humanity in Mobile County, Alabama. Made up of teams of women who are passionate about their community - the Women Build program emphasizes women working together to fund and build a house. This year, the house will be built for a family who has fallen on hard times due to health issues.

Left to right: Shannon Beale, Kristen Barre, Patty Cornelson, Annette Duncan, Judi Perkins

FIELD NOTES

Community Service

In addition to being a United Way community sponsor, Volkert volunteers participated in the organization's Annual Day of Caring. This event offers a unique opportunity for volunteers to help a community partner agency with projects such as painting and yard work.

Volkert's Foley, AL office teamed with Alabama Credit Union to sponsor their 7th annual Alabama/Auburn Baldwin County Chamber of Commerce Business After Hours event.

Seven associates from the Mobile office participated in a paint party raising funds for the Rape Crisis Center. The company also provided refreshments associated with the fundraiser.

"Candi's Crusaders", a team of Volkert walkers, raised over \$3500 for research, counseling and support for MS victims at the Multiple Sclerosis Walk at Spring Hill College in Mobile, AL.

Ray Wilkins (Mobile) assisted a World War II veteran during the Honor Flight to Washington, DC. The group visited the WWII monument and the Tomb of the Unknown Soldier. This program was begun in 2005.

Volkert Environmental Senior Project Manager **Paul Looney** will participate in the Florida Department of Education's State Instructional Materials Committee for Science for 9-12 graders, which will set the state's science curriculum for the next six years.

Continuing Professional Development

Newly Licensed Professional Engineers

Katie Warren (Birmingham)

Michael Harper, Jr. (Birmingham and Montgomery)

Congratulations to **Norman Hill**, who earned his Bachelor of Science degree in Organizational Management from the University of Mobile.

John Baker has earned the SR/WA designation from the International Right of Way Association. The SR/WA is the highest right of way designation and reflects a commitment to professional growth and development in the field. John has been a part of Volkert's Real Estate Services since 2007.

Announcements

Clay L. Hare, PE, Senior Vice President, assumed responsibilities of Chief Operating Officer for Volkert's Gulf Region. He has been with Volkert for 30 years.

Bill McDowall, P.E. (Mid-Atlantic CEI) was promoted to Vice President. He has been with the company for nine years.

Professional Service

Dennis Morrison, P.E., Senior VP, was elected to the Board of Directors for American Society of Highway Engineers, Potomac Section.

Guy O'Connor, PE, VP (Mobile) was elected to serve a two-year term as vice president of American Council of Engineering Companies – Alabama.

Larry Oliver, PE (Mobile) presented "The Alabama EDRP Finfish and Shellfish Nursery Habitat Restoration Program: A Case Study in Successful Salt Marsh Restoration Engineering" at the 5th National Conference on Coastal and Estuarine Habitat Restoration in Galveston, Texas. The case study was taken from Volkert's work on restoring 34 acres of eroded wetlands in Bayou La Batre for the Alabama Department of Conservation and National Resources.

Martha Kemp (Virginia) was elected to the Board of Directors for the American Consulting Engineers Council, Metro Washington, DC.

Chairman and CEO, Keith King was appointed to the newly formed Coastal Recovery Commission of Alabama. The Commission was created by Governor Bob Riley and is made up of a full range of Gulf Coast leaders. The Commission is charged with recommending goals, policies and strategies to respond not only to disasters such as the recent oil spill but also to hurricanes and sudden shifts in the economic environment – to assure a healthy community; to strengthen the region's economy; and to protect the Gulf Coast environmental assets for the future.

Tom White, PE, VP was appointed to a three-year term as Director for the Tampa Bay Section of the American Society of Highway Engineers.

Office Locations

Alabama
Birmingham
Foley
Mobile
Huntsville

Florida
Chipley
Gainesville
Pensacola
Tampa

Georgia
Atlanta/Kennesaw
Illinois
Collinsville

Louisiana
Baton Rouge
New Orleans
Slidell

Mississippi
Biloxi
Missouri
Jefferson City

North Carolina
Raleigh
South Carolina
Columbia

Tennessee
Chattanooga
Virginia
Alexandria
Washington, DC