

RESOLUTION 16-122

A RESOLUTION TO AUTHORIZE THE CITY OF SPRING HILL, TN TO ENTER INTO A BRIDGE GRANT PROGRAM WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) AND APPROVE ENGINEERING SERVICES FOR THE PROJECT

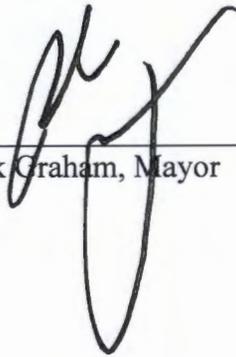
WHEREAS, TDOT has identified a structurally deficient bridge on John Lunn Road as the number one priority for needing replacement in Maury County; and

WHEREAS, TDOT has recommended to replace the bridge under a bridge grant program for an estimated cost of \$249,600.00 that is paid 98% by TDOT with a 2% match by the City; and

WHEREAS, staff recommends Collier Engineering Co., Inc. to provide engineering services for the project for an estimated cost of \$38,000.00.

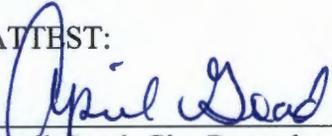
NOW, THEREFORE, BE IT RESOLVED, that the City of Spring Hill Board of Mayor and Aldermen authorizes the City to enter into a bridge grant program with the Tennessee Department of Transportation (TDOT) and approve Collier Engineering Co., Inc. to provide engineering services to repair a structurally deficient bridge on John Lunn Road.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on this 19th day of September, 2016.



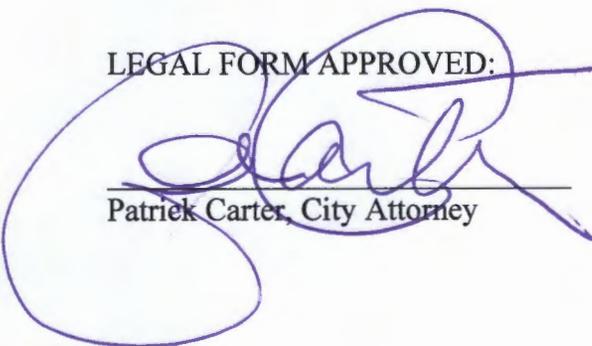
Rick Graham, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney

SUBJECT: TDOT Bridge Grant and Engineering for John Lunn Road bridge

DATE: September 1, 2016

ATTENTION: Board of Mayor and Aldermen

STAFF: Missy Stahl, Project Manager



STAFF MEMORANDUM

The purpose of this memo is to provide information regarding a bridge grant program currently offered by TDOT that will repair the bridge on John Lunn Road at a cost to the City of 2% of the project total.

Background:

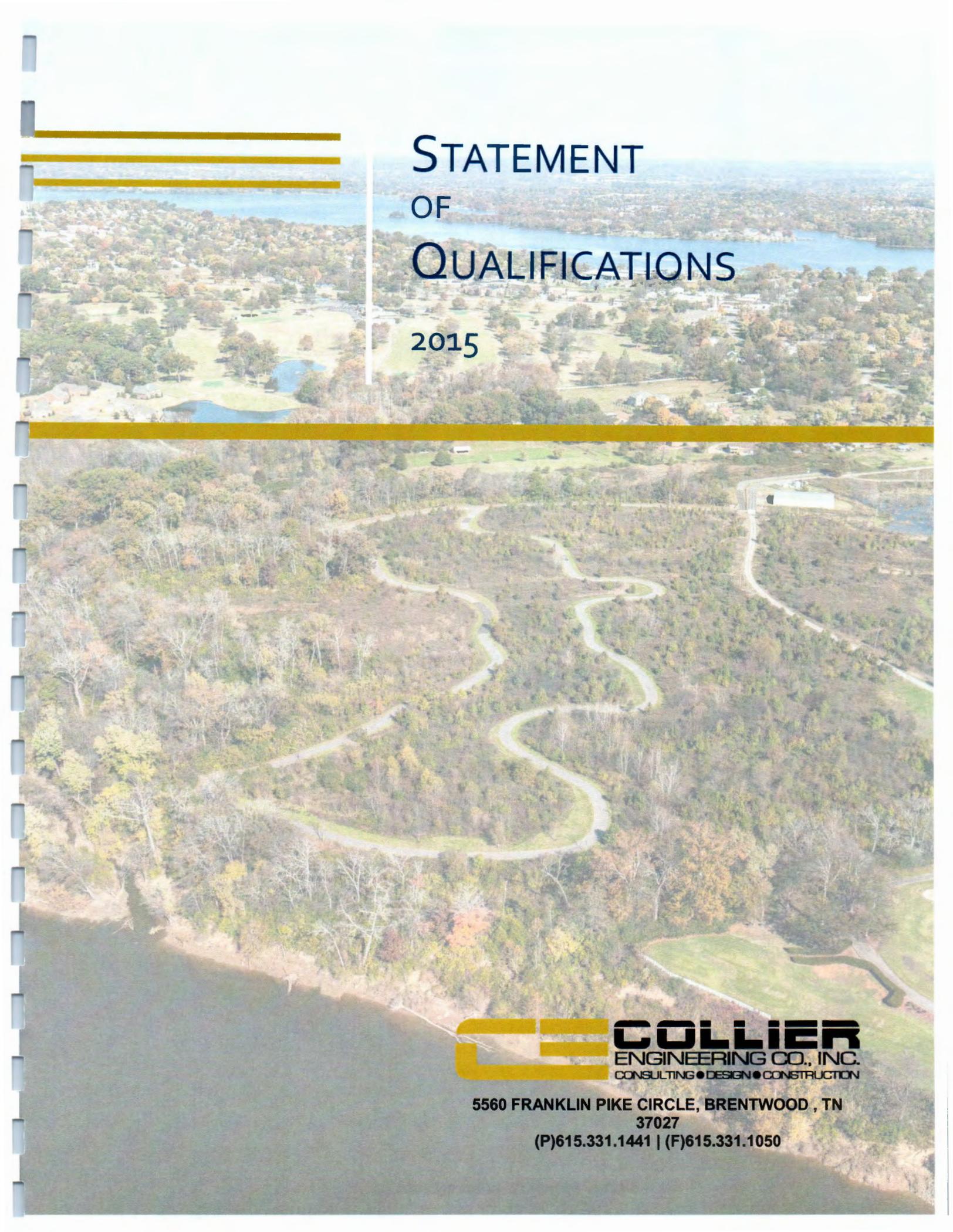
TDOT has evaluated all the bridges in Maury County that are in need of repair. The bridge located on John Lunn Road in Spring Hill was rated the #1 bridge in the county in dire need of repair (33.8% out of 100%). Estimated cost for construction is \$249,600 with engineering costs being an additional 15%. If any right of way easements have to be bought or utility lines relocated, these would also be at the cost to the City. Through the bridge grant, the City would be reimbursed 98% of all costs (excluding utility lines relocation) with the City funding 2% up to total funding of \$300,000 that has been allotted to this project. The project needs to be completed within two years to qualify for the reimbursement.

Collier Engineering Co., Inc. has been recommended to the City to use for the engineering and design services. This company has worked with TDOT on all bridge grant projects in Maury County as well as 30 other counties in the State of Tennessee. They will perform the survey and environmental services and lead the preliminary and construction engineering. After TDOT approves the design, the project will be bid out and Collier Engineering will oversee the construction.

The City will have two separate contracts: one with TDOT to be enrolled in the grant program and one with Collier Engineering Co., Inc. for the actual design and construction.

Staff Recommendation:

Staff recommends approval of the request.



STATEMENT
OF
QUALIFICATIONS

2015

CE **COLLIER**
ENGINEERING CO., INC.
CONSULTING • DESIGN • CONSTRUCTION

5560 FRANKLIN PIKE CIRCLE, BRENTWOOD, TN
37027

(P)615.331.1441 | (F)615.331.1050

COMPANY HISTORY

Collier Engineering Company, Inc. is a privately-owned consulting engineering firm based in Nashville, Tennessee. The company was founded in 1981 by the late Mr. James L. Collier who instilled the knowledge and commitment to service that the company thrives on today. Our staff of engineers, landscape architects, GIS specialists, inspectors, technicians and engineering support personnel provides complete engineering services for state, local and county governments, as well as private clients. Our primary expertise is the planning, design, and management of construction projects in the fields of transportation, site/civil design, construction management, and landscape architecture. Additionally, Collier can help clients benefit from the use of geographic information systems (GIS) and "GIS-centric" tools to manage the planning and maintaining infrastructure assets.



The Collier staff has a solid background in a variety of engineering and design principles. The company's current projects are of various sizes and complexity, and we follow through with them from concept to completion. We listen intently to our clients' goals and objectives and strive to respond to the individual challenges that each project presents. The company President, Chad A. Collier, P.E., has a strong background in construction, project management, and design expertise. He leads a staff of highly qualified professionals whose previous work experience with state and local governments, the private sector and contractor venues gives strength and diversity of knowledge to the company.

Collier Engineering Company, Inc. and its staff are committed to providing quality, professional engineering services for every client and are committed to the safety and welfare of our employees, current and future clients, and the general public. Providing excellence in customer service and lasting value in the projects we deliver propels every task that our team undertakes.

SERVICES PROVIDED:

Civil Engineering & Land Surveying



Collier Engineering was founded on the principle of providing clients with the expertise needed to guide clients through the challenges of land development, site planning, and transportation projects. This expertise began with the field of Civil Engineering and expanded to include associated disciplines that allow us to provide holistic solutions to our clients' goals and objectives. However, civil engineering remains the backbone of our company and ensures that the solutions presented by our team are structurally sound enough to stand the test of time.

- ***Transportation Planning***

Collier Engineering Company's engineers have a wealth of experience preparing planning reports, studies and associated mapping for transportation projects. Examples include studies of roadway improvement projects, alternate alignments, and intersection improvements, and providing traffic counts and projections for vehicular, bicycle and pedestrian use.

- ***Roadway Design***

Projects range from roadway relocations, widenings, bridge replacement projects and intersection modifications. The latest technology in computer-aided design is used from the initial development of a project to the final construction prints. Our vast amount of experience working on roadway projects for a variety of clients enables us to provide highly accurate estimates of construction costs and anticipate potential issues during the planning phases.

- ***Survey & Site Planning***

Collier provides professional registered land surveying services for the creation of legal descriptions, boundary survey documentation, flood-plain survey documentation, etc. We perform topographic/location surveys, construction staking using state of the art equipment and current methods to obtain results efficiently and accurately.

- ***Traffic Calming Design***

Collier engineers are experienced in context-sensitive design that can effectively reduce vehicle speeds, improve driver and pedestrian safety, and enhance an area's quality of life. Our approach to speed control, volume control, and changing driver behavior includes all three E's of traffic calming: education, enforcement, and engineering.

- ***Streetscape Enhancements & Pedestrian Enhancements***

Streetscape Enhancement projects improve the aesthetic and environmental value of a roadway or intersection, and the designs often provide appurtenances that increase multimodal access, allow for safer pedestrian usage, or permit special use of a roadway or street. Our engineers

work hand in hand with our Landscape Architects to provide “*Complete Street*” solutions that meet the needs and challenges of multi-modal transportation, stormwater runoff and water quality improvement, and provide cultural and aesthetic spaces that enhance the quality and value of this public space.

- ***Bridge Design and Structural Engineering***

Collier provides services in the area of bridge design for new facilities, as well as, upgrades and repairs to existing bridges, box culverts, and concrete retaining walls. Our engineers are versed in the design of various bridge types and are able to help our clients find solutions that meet their individual goals and budgets. Our bridge design expertise also includes pedestrian bridge crossings to be utilized at local parks and greenway projects. We have completed numerous locally-funded projects, as well as those funded by the TDOT Bridge Grant, the Federal Aid BRZ Program, and FEMA disaster relief funds for many of our municipal and county clients.

- ***Stormwater Management***

Collier has a wide area of expertise in a traditional design approach as well as a low impact design (LID) approach as it relates to stormwater management. We combine the depth and breadth of our real-world experiences with the latest technology to analyze and design stormwater related projects to meet our clients’ objectives while sufficiently addressing jurisdictional requirements. Collier Engineering assists our clients develop effective and efficient methods of managing stormwater, whether for site-specific issues or regional sustainable master plan, etc.

- ***Hydraulic Analysis***

On any project involving stream crossings, such as bridges or culverts, hydraulic analysis is performed using HEC-RAS, the hydraulics software designed for the U.S. Army Corps of Engineers. It allows us to acquire precise water surface profiles and prevent any adverse impacts to surrounding properties. We also use other computer software for hydraulic and drainage calculations such as HY-8 and Hydro CAD.

- ***Permitting***

Our company prepares permit applications whenever necessary on projects for submission to the Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers and/or Tennessee Valley Authority. Permits include ARAPs, 401 Water Quality Certification, Notice of Intent (NOI), TVA 26(a) and Storm Water Pollution Prevention Plans (SWPPP), and locally issued approvals such as grading permits and local codes coordination.

- ***Grant Applications***

We have worked closely with multiple agencies writing and managing grants for our clients, providing funding for numerous projects. Collier staff may also be able to help your organization locate and respond to grant opportunities that could help defray the costs associated with the adoption of GIS technologies, the development of multi-modal transportation options, streetscape enhancements, etc.

Landscape Architecture

Collier's experienced Landscape Architects have helped communities with the planning, design and construction of public spaces throughout the southeast. Services range from comprehensive land-use planning studies and ecological restoration on to site planning and streetscape enhancements or master plans for athletic complexes and passive parks. Our company can manage land development projects from initial site assessment through final completion and our Landscape Architects ensure that our clients' aesthetic goals are translated into tangible outcomes.



- ***Landscape Design***

Collier provides hardscape design and landscape plans that integrate with the civil design necessary to address the infrastructure needs of your project. Our staff ensures that the aesthetic quality of a finished project provides the maximum value for our clients' investments. Collier staff provides landscape design for city and regional parks, civic and corporate landscapes, large scale interdisciplinary projects, subdivisions and estates.

- ***Riparian Restoration / Enhancement***

Through the use of Best Management Practices, Collier Engineering has performed numerous enhancements to riparian stream banks and buffers. Collier's approach to design at these locations is to be environmentally sensitive to the project's surroundings, leaving as minimal imprint as practical. When and where opportunity presents, Collier has provided enhancements to riparian buffers, restoring a once-neglected feature to a beneficial asset.

- ***Greenway / Blueway Development***

Collier staff has assisted in the preservation of hundreds of acres of greenways and over 20 miles of associated shared-use trails. Collier works closely with our clients to assist in program needs, long range master planning and budgeting to maximize lateral greenway mileage construction. Our landscape architects ensure that these projects fit seamlessly into the context where they are constructed. This may involve restoration planting plans or inventory of significant features in the landscape to highlight and preserve throughout construction.

- ***Active / Passive Parks***

Collier's landscape architects have vast experience in the master planning and construction of park facilities. Our landscape architects create master plans for parks of all scales, from pocket parks to large regional parks and athletic complexes. Our staff can listen to your community's desires through public input and turn goals into tangible outcomes expressed in the landscape.

Construction Engineering & Inspection (CEI)



CEI has been a primary component of Collier's services since our company began. Our engineers and inspectors and project managers provide construction inspection and client representation on various projects including roadway construction, bridge construction, roadway paving, and site development projects. Our staff is experienced in the entire CEI scope, and Collier can manage transportation-related construction projects for local or state governments at each step:

- ***Project Coordination***

Collier's longevity in the region as a premiere provider of CEI services is due in part to the company's understanding of project sequencing from the initial project design sketches through final acceptance. It is this experience that allows project managers to be expert stewards for the various project stakeholders. Our project management methods ensure the project arrives on time, meets all project specifications, and is finished within budget.

- ***Erosion Control Inspection***

Collier project managers and inspectors are certified to provide TDEC mandated erosion prevention and sediment control inspections throughout the life of a project.

- ***Acceptance Inspections***

Experienced inspectors provide sampling and testing of materials, and proper acceptance documentation to meet regulatory and client requirements.

- ***ITB/Contract Management***

Collier engineers can accurately estimate quantities for each item that will be required as part of any construction project we undertake. We deliver estimated quantities, set up line-item bid forms, advertise projects for subcontractor bidding, assist in bidder ranking and selection, and perform all relevant contract management activities to ensure the client receives the best possible construction at the most reasonable price.

- ***Project Accounting***

Collier inspectors ensure that all daily tickets are acquired and that they match all items delivered and all work done on a daily basis. Project tickets are collected and entered into our project-specific accounting system to ensure all daily tickets and all monthly invoices reconcile with work done throughout the project.

Information Technology Solutions

- ***Geographic Information Systems (GIS)***

By implementing GIS, many local governments and private property managers are recognizing a return on their investments in GIS through increased precision, efficiency, and cost savings in some of the following areas:

- Creation and publication of informational maps and reports, Internet map servers, interactive map kiosks, etc.
- Inventory mapping and management of infrastructure assets and facilities (e.g. roadways, traffic signs, bridges, curb ramps, guardrails, parking meters, recreational buildings, etc.), and related financial reporting for GASB Statement #34 compliance.
- Pavement management, including the estimation of paved surface conditions, prediction of deterioration timelines, and the selection and ranking of proposed resurfacing and/or rehabilitation projects.
- Land records management and distributed access to parcel data, plats, subdivisions, engineering drawings, etc.
- Predicting, planning, and responding to urban and regional growth.
- Management of permitting and construction-related activities such as inspection, standards compliance, work-zone safety, etc.
- Analysis of traffic data and planning of traffic-calming initiatives.

Collier professionals provide GIS solutions that foster greater information access and informed decision-making by deploying state-of-the-art GIS solutions (including documentation, training, and support) to meet your needs from the enterprise level down to the individual user.

- ***Vehicular / Fleet Routing***

Collier staff can use their experience utilizing GIS-based routing software to provide more efficient service routing for mowing, trash pick-up, recycling, street sweeping, brush removal, etc. Whether your fleet consists of one vehicle or hundreds of vehicles, route optimization software like Routesmart for ArcGIS and components of ArcLogistics Route can help reduce fleet-related expenses, increase driver/tech accountability, and improve service to your stakeholders.

- ***Infrastructural Asset Maintenance Management***

Collier can provide experience in using GIS-centric methods for creating and maintaining a map-based collection of infrastructural assets, their current conditions, their maintenance history, one-time and cyclical maintenance requirements, etc.

- ***Pavement Management Systems***

Collier staff utilizes modern tools created specifically for managing the various aspects of pavement maintenance can often provide clients with a transparent and empirical method of assessing roadway conditions.

PROJECT QUALIFICATIONS



5560 FRANKLIN PIKE CIRCLE, BRENTWOOD , TN 37027
(P)615.331.1441 | (F)615.331.1050
www.collierengineering.com

Since 1981, Collier Engineering has provided engineering-related consulting services to local governments needing expertise pertaining to the planning, design, estimation, construction management, and maintenance management of bridges, roadways, sidewalks, and other civil infrastructure assets.

In 1982, TDOT's State Aid Bridge Grant Program was created to provide funding to assist local governments with the replacement or rehabilitation of deficient bridges under their jurisdiction.

Since the inception of the program, around 2800 bridges throughout Tennessee have been replaced using TDOT State Aid Bridge Grant funding, and Collier Engineering Co., Inc. has provided professional grant management, engineering design, and construction management expertise for nearly **400** of them.

Collier's expertise with TDOT State Aid Bridge Grant management, hydraulic analysis and bridge design, and CEI best practices ensures a quality product built according to TDOT standards to meet the specific needs of the site — beginning with analysis of site requirements, through the design and construction phases, and ending with the construction acceptance inspection and reconciliation of project work tickets and materials invoices.

Our staff provides construction inspections and owner/stakeholder representation on roadway-, bridge-, and sidewalk-related projects, and other types of civil engineering projects throughout the region. Consult with us on your next bridge project, and your next bridge project will be the model of success.



**BRIDGE DESIGN – HYDRAULIC ANALYSIS – PERMITTING – CONSTRUCTION ENGINEERING INSPECTION (CEI)
STAKEHOLDER REPRESENTATION – TDOT BRIDGE GRANT MANAGEMENT**

Bridge Design: Collier provides design services for new span bridges, new slab bridges, upgrades and repairs to existing bridges, new box culverts, pedestrian crossings, and new concrete retaining walls, including all surveying, hydraulic analysis, bridge approaches, right-of-way plans, utility coordination, traffic control, erosion control and reconciliation of construction quantities, materials tickets, etc. We have completed numerous projects funded through local programs, through TDOT Bridge Grants, and through the Federal Aid BRZ Program and FEMA Disaster Relief.

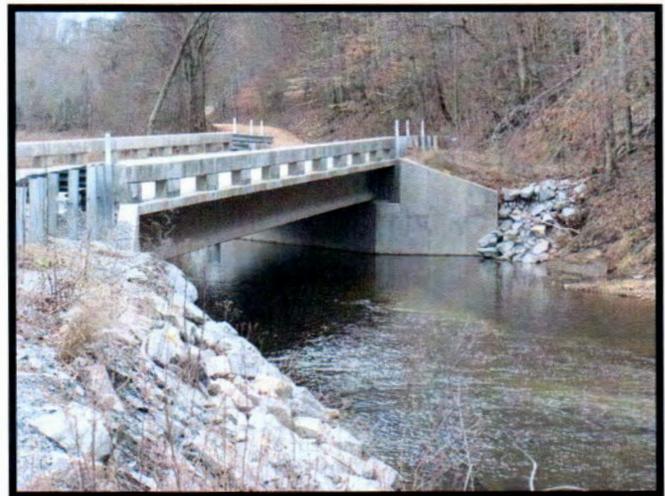


Hydraulic Analysis: On any project involving stream crossings, such as bridges or culverts, Collier engineers perform hydraulic analysis using HEC-RAS, designed for the U.S. Army Corps of Engineers. It allows our designers to acquire precise water surface profiles and prevent any adverse impacts to surrounding properties. Scour analysis is also performed for any flood study for structures deemed susceptible to scour erosion. We can use our knowledge in HEC-RAS to work with existing COE hydraulic models and develop appropriate analysis for proposed stream crossings. There's some fairly technical stuff involved, and we do it all day long, every day. We can help you if you need help.



Permitting: Collier prepares permit applications whenever necessary on projects for submission to the Tennessee Department of Environment and Conservation, U.S. Army Corps of Engineers and/or Tennessee Valley Authority. Permits include ARAPs, 401 Water Quality Certification, Notice of Intent (NOI), TVA 26(a) and Storm Water Pollution Prevention Plan (SWPPP). We work proactively with Permits departments across Tennessee.

Construction Engineering Inspection (CEI): Collier inspections result in detailed daily reports outlining all contractor activities. Our inspection reports allow Collier staff to verify quality work activities and accurately approve monthly pay estimates. It is this breadth of knowledge and attention to detail that has allowed Collier Engineering Co., Inc., to maintain such an experienced presence, successfully completing projects of all sizes and scopes, whether funded from completely local sources or in part by the TDOT Bridge Grant Program, the Federal Aid BRZ Program, FEMA Public Assistance Program, etc.



For more information about how Collier Engineering Co., Inc. can provide efficient professional services related to your organization's infrastructure, please feel free to contact our President, Mr. Chad A. Collier, using the information provided in this brochure or on our website.

**BRIDGE DESIGN – HYDRAULIC ANALYSIS – PERMITTING – CONSTRUCTION ENGINEERING INSPECTION (CEI)
STAKEHOLDER REPRESENTATION – TDOT BRIDGE GRANT MANAGEMENT**



COLLIER

ENGINEERING CO., INC.

CONSULTING • DESIGN • CONSTRUCTION

Since 1981, Collier Engineering has provided engineering-related consulting services to local governments needing expertise pertaining to the planning, design, estimation, construction management, and maintenance management of bridges, roadways, sidewalks, and other civil infrastructure assets.

In 1982, TDOT's State Aid Bridge Grant Program was created to provide funding to assist local governments with the replacement or rehabilitation of deficient bridges under their jurisdiction. Since the inception of the program, around 2800 bridges throughout Tennessee have been replaced using TDOT State Aid Bridge Grant funding, and Collier Engineering Co., Inc. has provided professional grant management, engineering design, and construction management expertise for nearly 400 of them.



Civil Engineering

- Roadway Design
- Roadway Improvements
- Roadway Relocation
- Pedestrian Facility Enhancement
- Stormwater Management
- Erosion Prevention & Sediment Control
- Riparian Restoration / Enhancement

Structural Engineering

- Bridge Design
- Bridge Replacement
- TDOT Bridge Grant Management
- Retaining Wall Design

Transportation Engineering

- Grant Applications & Administration
- Traffic Count Studies
- Pedestrian Facility Enhancement
- Bicycle Facility Enhancement
- Multimodal Access Design
- Intersection Realignment
- Traffic Calming Design
- Paved Surface Condition Assessment

Construction Engineering & Inspection (CEI)

- Construction Documentation
- Stakeholder Representation
- Asset Condition Inspection
- Quantities Estimation
- ITB / Bid / Contract Management
- Permitting Requirements & Compliance
- Work / Materials Ticket Reconciliation
- Materials Testing
- Project Coordination
- Project Accounting
- Daily Construction Inspection
- Work-Zone Safety
- As-Built Drawings
- ADA Compliance
- Cost-Effective Quality Assurance

Project & Program Management

- Pavement Preservation Strategy
- Roadway Condition Data Collection
- Stakeholder Communications
- Public Relations
- GASB-34 Compliance

Landscape Architecture

- Master Planning
- Grant Applications & Administration
- Active & Passive Parks
- Greenway / Blueway Development
- Detailed Site Design - Hardscape Design
- Irrigation Design - Landscape Design
- Parking Design - Streetscape Design
- Bicycle Paths - Paved Trails

Geographic Information Systems

- Asset Inventory Mapping
- Paved Surface Condition Mapping
- GIS-Centric Asset Maintenance Management
- Vehicular Routing Systems
- Wayfinding Signage
- What-If Modeling & Planning

Surveying

- Boundary - Construction - Elevation
- Hydrographic - Topographic
- GPS Control - Monuments & Staking
- ROW / Utility Route Surveys

Collier Engineering Co., Inc., is a TDOT prequalified consultant firm. Our staff includes experienced Professional Engineers, Engineers In Training, Landscape Architects, Project Managers, Surveyors, Technicians, Inspectors, and Clerical Staff that are accustomed to providing the attention to detail, the commitment to context-sensitive design, and the safe and cost-effective construction of infrastructural projects across Middle Tennessee. Meet our primary management and project team:

<p>Chad A. Collier, P.E.; President</p>	 <p>Chad provides over 20 years of professional engineering experience with an emphasis on public infrastructure projects. Chad is the principal in charge of the staff at Collier Engineering. Mr. Collier currently serves as engineering advisor to The Williamson County Highway Commission advising them on projects and requests throughout the county. He served as city engineer for the City of Oak Hill from 2002-2010 providing engineering assessments and opinions to the Planning Commission, Board of Zoning Appeals, Board of Commissioners, as well as serving as staff engineer and providing engineering support to the city as a whole. Additionally, Mr. Collier has been instrumental in the recent success of the Music City Bikeway project, as well as the ongoing Group Paving and Long Term Pavement Preservation Programs underway within Metro Nashville – Davidson County.</p>
<p>Randy Carroll, Vice President; Project Manager</p>	 <p>Currently serving Vice President and Project Manager for Collier, Randy Carroll has since 1986 overseen the construction of bridges and roadways for local governments across Tennessee.</p>
<p>Jason Deal, P.E.; Project Manager/Project Engineer</p>	 <p>A Lifelong resident of Middle TN, Jason brings 20 years of municipal and commercial land development experience to Collier Engineering. Having had leadership roles with all three components of a project, owner, designer, contractor, Jason has a proven success in implementing sound engineering design while maintaining a common-sense approach to problem solving issues.</p>
<p>Jeffrey D. Stevens, P.E.; Project Manager/ Project Engineer</p>	 <p>Jeff has extensive experience in transportation engineering, roadway design, bridge design, and construction engineering inspection services for roadways, natural gas lines, and water lines. He has experience in traffic engineering, intersection design, and traffic studies including data collection, warrant analysis, and signal timing. Mr. Stevens has been with Collier Engineering since early 2005 performing bridge and roadway design, hydraulic analysis and reports, environmental permitting, and structural design and analysis for many local county governments in Tennessee, primarily under the TDOT Bridge Grant Program, TDOT State Aid Program, and the TDOT BRZ Program. Since May 2009, Mr. Stevens has overseen the design division at Collier Engineering, and has been the City Engineer for the Town of Kingston Springs, Tennessee.</p>

Collier Engineering Co., Inc. has managed multiple bridge projects for the local government entities listed below. Select reference projects are provided afterward:

Bedford County Highway Department
Cheatham County Highway Department
Hickman County Highway Department
Lewis County Highway Department
Moore County Highway Department
Trousdale County Highway Department
Wilson County Highway Department
Metro Nashville Public Works Department
Dickson County Highway Department
Houston County Highway Department

Decatur County Highway Department
Franklin County Highway Department
Lawrence County Highway Department
Maury County Highway Department
Rutherford County Highway Department
Williamson County Highway Department
Town of Kingston Springs
Metro Nashville Parks & Recreation Department
Hamilton County Highway Department
Lincoln County Highway Department

LONG BRANCH ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS

Constructed under the TDOT Bridge Grant Program, Collier Engineering performed the engineering design and construction management for the bridge replacement and roadway improvements for this project on Long Branch Road over Long Branch, Lawrence County. This 70-foot single-span concrete bridge was constructed to allow a 22' wide roadway. Grading included ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. A hydraulic analysis and assessment of the site determined that the project did not negatively impact the base flood elevations, floodway elevations and floodway widths. Erosion prevention and sediment control plans were developed to manage all the stormwater at the project site. The project was properly permitted with all the appropriate state environmental agencies. Coordination with local utilities was performed by Collier Engineering, and the project was developed for the Lawrence County Highway Department.



INDIAN CREEK ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS

Collier Engineering performed the engineering design and construction management for the bridge replacement and roadway improvements for this project on Indian Creek Road over Indian Creek, Lewis County, Tennessee. The project was constructed under the Tennessee Department of Transportation (TDOT) Bridge Grant Program for bridge replacements. The length of this single span concrete bridge is approximately 72 feet. The proposed improvements were constructed to allow for 22' wide paved roadway. The project grading included the necessary roadway ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. A hydraulic analysis and assessment of the site was performed to determine that the project did not negatively impact the base flood elevations, floodway elevations and floodway widths. Erosion prevention and sediment control plans were developed to manage all the stormwater at the project site. The project was properly permitted with all the appropriate state environmental agencies. Coordination with local utilities was performed by Collier Engineering, and the project was developed for the Lewis County Highway Department.



SOUTH LICK CREEK ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS (1993)



Collier Engineering performed the engineering design and construction management for this bridge replacement and roadway improvement project on South Lick Creek Road over Lick Creek. The project was constructed under the Tennessee Department of Transportation (TDOT) BRZ bridge replacement program. The length of this three-span concrete bridge is approximately 185 feet. The proposed improvements were constructed to allow for 22' wide paved roadway, and two foot paved shoulders on each side. The final surface of the road was hot mix asphalt. The project grading included the necessary roadway ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. Coordination with local utilities was performed by Collier Engineering, and assistance was provided to the Williamson County Highway Department for any property owner issues such as fences, driveways, landscaping, right-of-way acquisition, construction easements, and slope easements.

The project construction costs were approximately \$350,000.

WHITE ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS (2009)

Collier Engineering performed the construction management for the bridge replacement and roadway improvements for this project on White Road over Big Turnbull Creek, Dickson County, Tennessee. The project was designed by the Tennessee Department of Transportation (TDOT) under the BRZ Program for bridge replacements. The length of this three-span concrete bridge is approximately 220' feet. The proposed improvements were constructed to allow for 22' wide paved roadway. The project grading included the necessary roadway ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. A hydraulic analysis and assessment of the site was performed to determine that the project did not negatively impact the base flood elevations, floodway elevations and floodway widths. Erosion prevention and sediment control plans were developed to manage all the stormwater at the project site. The project was properly permitted with all the appropriate state environmental agencies. Coordination with local utilities was performed by Collier Engineering, and the project was managed for the Dickson County Highway Department. The project construction costs were approximately \$550,000.



CRAIG BRIDGE ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS (2010)

Collier Engineering performed the engineering design and construction management for the bridge replacement and roadway improvements for this project on Craig Bridge Road over Snow Creek, Maury County, Tennessee. The project was constructed under federal funding through FEMA disaster relief. The length of this two-span concrete bridge is approximately 96 feet. The proposed improvements were constructed to allow for 24' wide paved roadway. The project grading included the necessary roadway ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. A hydraulic analysis and assessment of the site was performed to determine that the project did not negatively impact the base flood elevations, floodway elevations and floodway widths. Erosion prevention and sediment control plans were developed to manage all the stormwater at the project site. The project was properly permitted with all the appropriate state environmental agencies. Coordination with local utilities was performed by Collier Engineering, and the project was developed for the Maury County Highway Department. The project construction costs were approximately \$360,000.



BUCKSNORT ROAD -- BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS (2008)



Collier Engineering performed the engineering design and construction management for the bridge replacement and roadway improvements for this project on Bucksnort Road over Sugar Creek, Hickman County, Tennessee. The project was constructed under the Tennessee Department of Transportation (TDOT) Bridge Grant Program for bridge replacements. The length of this two-span concrete bridge is approximately 120 feet. The proposed improvements were constructed to allow for 24' wide roadway. The project grading included the necessary roadway ditches on either side of the road as needed for storm water drainage, and the necessary side slope and driveway adjustments for the roadway improvements. A hydraulic analysis and assessment of the site was performed to determine that the project did not negatively impact the base flood elevations, floodway elevations and floodway widths. Erosion prevention and sediment control plans were developed to manage all the stormwater at the project site. The project was properly permitted with all the appropriate state environmental agencies. Coordination with local utilities was performed by Collier Engineering, and the project was developed for the Hickman County Highway Department. The project construction cost were approximately \$340,000.

Collier's expertise with TDOT State Aid Bridge Grant management ensures a quality product built according to TDOT standards to meet the specific needs of the site — beginning with analysis of site requirements, through the design and construction phases, and ending with the construction acceptance inspection and reconciliation of project work tickets and materials invoices. Our staff provides construction inspections and owner/stakeholder representation on roadway-, bridge-, and sidewalk-related projects, and other types of civil engineering projects throughout the region. Consult with us, and your next bridge project will be the model of success.

LIST OF CLIENTS



5560 FRANKLIN PIKE CIRCLE, BRENTWOOD , TN 37027
(P)615.331.1441 | (F)615.331.1050
www.collierengineering.com



Client References

Bedford County Highway Department

Mr. Stanley Smotherman, Road Superintendent
328 Dover Street
Shelbyville, TN 37162
(931) 684-4651

Cheatham County Highway Department

Mr. Carl Cothorn, Road Superintendent
1037 Thompson Road
Ashland City, TN 37015
(615) 792-4240

Decatur County Highway Department

Mr. Robert Montgomery, Road Superintendent
160 Luna Street
Decaturville, TN 38329
(731) 852-2511

Dickson County Highway Department

Mr. Jerry Burgess, Road Superintendent
115 Sylvis Road
Dickson, TN 37055
(615) 446-2638

Franklin County Highway Department

Mr. John Woodall, Road Superintendent
207 S. Cedar Street
Winchester, TN 37398
(931) 967-2755

Hamilton County Highway Department

Mr. Ben Wilson, Highway Director
7625 Standifer Gap Road
Chattanooga, TN 37421
(423) 855-616

Hickman County Highway Department

Mr. Ronald Coates, Road Superintendent
187 Highway 50 East
Centerville, TN 37033
(931) 729-2482



Houston County Highway Department

Mr. George Dew, Highway Superintendent
7314 Highway 13
Erin, TN 37061
(931) 289-4151

Lawrence County Highway Department

Mr. Donnie Joe Brown, Road Superintendent
520 Crescent Factory Road
Lawrenceburg, TN 38464
(931) 762-4272

Lewis County Highway Department

Ms. Joyce Holt, Road Superintendent
327 Buffalo Road
Hohenwald, TN 38462
(931) 796-2287

Lincoln County Highway Department

Mr. Tim Gill, Road Superintendent
161 Molino Road
Fayetteville, TN 37334
(931) 433-2585

Maury County Highway Department

Mr. Van Boshers, Road Superintendent
1210 Industrial Park Road
Columbia, TN 38401
(931) 375-6201

Metropolitan Government of Nashville and Davidson County – Public Works

Mr. Randy Lovett, Director of Public Works
Mr. Don Reid, Paving Office Manager
750 South Fifth Street
Nashville, TN 37206
(615) 862-8700

Metropolitan Government of Nashville and Davidson County – Parks & Recreation

Mr. Tommy Lynch, Director
511 Oman Street
Nashville, TN 37203
(615) 862-8400



Metropolitan Government of Nashville and Davidson County – Water Services

Mr. Ricky Swift
1700 Third Avenue North
Nashville, TN 37208
(615) 862-4600

Moore County Highway Department

Mr. Milton Ferrell, Road Superintendent
680 Booneville Highway
Lynchburg, TN 37352
(931) 759-7800

Perry County Highway Department

Mr. Robert Dedrick, Road Superintendent
P.O. Box 38
Linden, TN 37096
(931) 589-5217

Rutherford County Highway Department

Mr. Greg Brooks, Road Superintendent
1510 Rutledge Way
Murfreesboro, TN 37129
(615) 898-7856

Town of Kingston Springs

Mr. Mike McClanahan, City Manager
396 Spring Street
Kingston Springs, TN 37082
(615) 952-2110

Town of Nolensville – Department of Public Works

Mr. Don Swartz, Director
7218 Nolensville Road
Nolensville, TN 37135
(615) 776-6682

Trousdale County Highway Department

Mr. Bill Scruggs, Road Superintendent
537 East Main Street
Hartsville, TN 37074
(615) 374-2961



Wayne County Highway Department

Mr. Chuck Moser, Road Superintendent
315 Hog Creek Road
Waynesboro, TN 38485
(931) 722-5556

Williamson County Highway Department

Mr. Eddie Hood, Superintendent of Highways
302 Beasley Drive
Franklin, TN 37064
(615) 790-5598
Mr. Rogers Anderson, County Mayor
(615) 790-5700

Wilson County Highway Department

Mr. Steve Lynch, Interim Road Superintendent
106 Oak Street
Lebanon, TN 37088
(615) 444-9022