



## Hamilton County Board of Commissioners

### RESOLUTION

No. 825-7

**A RESOLUTION TO AUTHORIZE THE COUNTY MAYOR TO ENTER IN AND EXECUTE A CONTRACT WITH CROY ENGINEERS, LLC FOR DESIGN SERVICES FOR THE EXTENSION OF EXISTING HILLTOP DRIVE TO VOLKSWAGEN DRIVE ADJACENT TO I-75 FOR AN AMOUNT NOT TO EXCEED \$1,535,620.00.**

**WHEREAS, Resolution 824-18 approved the firm of Croy Engineers, LLC to provide design services for a road extension from existing Hilltop Drive to Volkswagen Drive adjacent to I-75; and,**

**WHEREAS, Resolution 924-7 approved the firm of Croy Engineers, LLC to provided Preliminary Engineering Services for a road extension from existing Hilltop Drive to Volkswagen Drive adjacent to I-75; and,**

**WHEREAS, the total amount of the contract shall not exceed \$1,535,620.00 without approval from the County Commission; and,**

**WHEREAS, there are sufficient funds available for this project in the Hamilton County Roads Improvement Capital Projects Fund.**

**NOW, THEREFORE, BE IT RESOLVED BY THIS COUNTY LEGISLATIVE BODY IN SESSION ASSEMBLED:**

**That the County Mayor is authorized to enter in and execute a contract with Croy Engineers, LLC for Design Services for the roadway extension of existing Hilltop Drive to Volkswagen Drive adjacent to I-75 for an amount not to exceed \$1,535,620.00.**

**BE IT FURTHER RESOLVED THAT THIS RESOLUTION TAKE EFFECT FROM AND AFTER ITS PASSAGE, THE PUBLIC WELFARE REQUIRING IT.**

#### CERTIFICATION OF ACTION

Approved: ☒

Rejected: ☐

Approved: ☒

Vetoed: ☐

*W. K. H. by Brook*  
*Welton, Chief Deputy*  
County Clerk

*W. H. P.*  
County Mayor

August 6, 2025  
Date



July 18, 2025

Nathan Janeway  
Director of Development Services  
Hamilton County Government  
Public Works Division  
Chattanooga, TN

Re: Proposal for Design of Hilltop Drive Extension

Mr. Janeway:

Croy Engineering ("Engineer") would like to thank you for the opportunity to provide this proposal agreement for professional services on the above referenced project.

### **Project Understanding**

Hamilton County intends to extend Hilltop Drive to enhance connectivity and traffic circulation in the area. The proposed extension will tie into Volkswagen Drive, creating a critical link between the local transportation network and regional employment centers. The project will be designed in accordance with the Tennessee Department of Transportation (TDOT) standards and guidelines. The project will follow TDOT's PDN and LPDO guidelines.

Please see attached detailed proposal for the design of Hilltop Drive extension:

Again, we thank you for the request. If you have any questions, please do not hesitate to contact us. We look forward to working with you on this project.

Sincerely,  
Croy Engineering

*Harry Hawkins*

Harry Hawkins  
Vice President

### **Attachments**

- Proposal for Engineering Services – Hilltop Drive Extension

Cc: Reading File  
David West, P.E.



Proposal for Engineering Services

Hilltop Drive Extension – Hamilton County, Tennessee

Date: July 18, 2025

### **Project Understanding**

Hamilton County intends to extend Hilltop Drive to enhance connectivity and traffic circulation in the area. The proposed extension will tie into Volkswagen Drive, creating a critical link between the local transportation network and regional employment centers. The project will be designed in accordance with the Tennessee Department of Transportation (TDOT) standards and guidelines. The project will follow TDOT's PDN and LPDO guidelines.

### **Scope of Services**

Our team will provide full-service design and coordination efforts necessary to advance the project from survey through construction-ready plans. Services include:

#### **Surveying and Utility Location**

Croy will perform a detailed topographic survey of the project area, including two-foot contours and all visible improvements (pavement, curbs, striping, structures, utilities, etc.). Spot elevations will be collected along hard surfaces and vertical features at approximately 50-foot intervals. Storm and sanitary structures will be field located, with invert elevations, pipe sizes, and materials documented. Boundary survey is not included but can be added for an additional fee.

Subsurface utilities will be identified using Ground Penetrating Radar (GPR) and Radio Frequency (RF) methods, coordinated with utility owners. Early coordination with Colonial Pipeline will also occur to verify existing pipeline location. Survey data will be referenced to NAVD 88, and all survey control will be established per TDOT standards.

Croy will supplement field work with airborne LiDAR collection at a minimum density of 20 points per square meter. Mapping will support the development of one-foot contours and include planimetric features visible from aerial photography, such as roads, trails, streams, ponds, fences, and structures. Orthophotography will be collected at a 3-inch pixel resolution. LiDAR data collection will also include the additional surrounding areas as requested by the County.

**Survey Fee: \$140,000**



## **Environmental Services**

### **NEPA / Section 4(f) Compliance**

Based on the anticipated use of Federal funding, the team will prepare and support the development of a NEPA document. At this time, it is anticipated that a Categorical Exclusion (CE) can be obtained. However, if the level of impact necessitates an Environmental Assessment (EA) then a change order may be necessary for the additional effort. Our efforts include preparation of the project description, environmental footprint exhibits, impact documentation, and Section 4(f) evaluations. Public involvement support will be provided as required by the class of action.

### **Ecology and Section 106 (Terracon)**

Terracon will lead ecological field investigations and cultural resource assessments, including threatened and endangered species habitat evaluations, stream and wetland delineations, and historic and archaeological surveys as required under Section 106 of the National Historic Preservation Act.

### **Air Quality and Noise Analysis (Terracon)**

Terracon will perform air and noise studies in accordance with TDOT and FHWA guidance. This includes evaluating potential impacts from traffic-related emissions and noise levels, modeling where applicable, and documenting findings for inclusion in the NEPA submittal.

### **USACE Section 404 Permit (Nationwide or Regional), if applicable**

Prepare and submit documentation to the U.S. Army Corps of Engineers for a Nationwide or Regional Permit covering jurisdictional stream or wetland impacts. Permit support includes delineation mapping, coordination with the ecology subconsultant, and development of permit exhibits and forms.

### **Tennessee Aquatic Resource Alteration Permit (ARAP), if applicable**

Coordinate with TDEC to obtain an ARAP for impacts to state waters. Services include application preparation, mapping of affected resources, and identification of avoidance and minimization measures.



### Environmental Coordination

Provide overall environmental task management including submittal review, coordination with subconsultants and regulatory agencies, participation in team meetings, and integration of environmental deliverables into the design schedule. This includes ensuring consistency between the final design and the approved environmental document.

**Environmental Fee (Croy): \$68,000**

**Environmental Fee (Terrecon): \$118,500**

**Total: \$186,500**

### Geotechnical Investigation

Croy will coordinate with Terracon Consultants to conduct a geotechnical investigation along the proposed extension corridor. This work will support pavement design, grading stability, and foundation recommendations for drainage and structural components. Specific services include:

Drilling and sampling of soil test borings at representative locations along the proposed alignment, with laboratory testing conducted per AASHTO and ASTM standards.

Evaluation of subsurface conditions to identify unsuitable materials, groundwater presence, and cut/fill transitions.

Preparation of a geotechnical engineering report summarizing findings and providing design recommendations for pavement sections, slope stability, and potential retaining structures.

All field and laboratory work will be completed in accordance with TDOT design requirements.

**Geotechnical Fee (Terracon): \$36,550**

## **Roadway Design**

Croy will advance the project from preliminary, 30%, final design, 60% & 90%, PS&E package, 100%, and bidding assistance. Our design efforts will build on the concept developed by Croy as part of the Project Evaluation Report (PER). All design will follow TDOT guidelines and Hamilton County standards. Key design considerations include:

Validate the concept design to include evaluating additional options at the western tie-in including shifting the intersection closer to the I-75 interchange and minor shifts to the alignment around the park entrance.

Geometric refinement of the new alignment, including horizontal and vertical profiles, cross-sections, and grading plans.

Utility coordination will be conducted with all known utilities in the project area. Additionally, we will coordinate directly with Colonial Pipeline to address the pipeline crossing and obtain the necessary approvals and permissions.

Signal revision at Volkswagen Drive, with a focus on minimizing unnecessary impact, such as potential modifications to the adjacent Volkswagen Park driveway, which may not require full reconstruction.

Revision to the proposed signal at the Hilltop and Hunter Road intersection, which represents the most significant side road impact due to the need for turn lane extensions and associated grading.

Validation and detailed design of five potential culvert crossings identified in the concept. We will verify whether these crossings are over jurisdictional streams and coordinate with the environmental team accordingly.

Evaluation of drainage patterns, which generally trend south toward a culvert under I-75, per city GIS data. We will assess the feasibility of incorporating permanent detention ponds to mitigate runoff volumes and manage peak flows.

Design coordination with Enterprise South Nature Park, where the new alignment is expected to impact an existing mountain bike trail. We will work with the County to evaluate public involvement needs and potential trail relocation or mitigation strategies.





All design plans will include grading, typical sections, drainage, erosion control, striping, signage, utility coordination, and right-of-way plans. Croy will also prepare engineer's opinions of probable construction cost at all major submittal milestones.

**Roadway Design Fee: \$996,970**

### **Project Management and TDOT Coordination**

Croy will lead overall project management, serving as the County's point of contact throughout the design process. Our team will coordinate with TDOT to obtain any required encroachment permits, ensuring compliance with applicable requirements. QA/QC reviews will be conducted internally at each phase to ensure plan accuracy and consistency.

**Project Management Fee: \$175,600**

**Total Project Fee: \$1,535,620**

### **Deliverables**

- Topographic Database
- Environmental documentation and permit applications
- Geotechnical report
- Preliminary and final roadway construction plans
- Right-of-way plans
- Engineer's cost estimates
- PS&E Package
- Public Outreach if needed
- TDOT encroachment permit submittal

APPROVED: Hamilton County, TN

Signed \_\_\_\_\_

Print Name \_\_\_\_\_

Date \_\_\_\_\_

Croy

Signed \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



Attest \_\_\_\_\_

Print Name \_\_\_\_\_

Date \_\_\_\_\_