

RESOLUTION 22-205

A RESOLUTION TO APPROVE AMENDMENT NO. 1 FOR PROFESSIONAL SERVICES AGREEMENT WITH CT CONSULTANTS FOR THE HARVEY PARK GREENWAY DESIGN PROJECT

WHEREAS, the City of Spring Hill Board of Mayor and Aldermen approved the professional services agreement with CT Consultants for design services for the Harvey Park Greenway (“Project”) with Resolution 18-153; and

WHEREAS, CT Consultants has submitted Amendment #1 to their existing contract in the amount of \$91,260 for design services as outlined in Attachment “A” for additional survey services and services associated with the No-Rise Submittal to FEMA; and

WHEREAS, funding for the amendment would be from the 1875 Fund; and

WHEREAS, City staff recommends approval of Amendment No. 1 with CT Consultants for the proposed services not-to-exceed amount of \$91,260.00.

NOW, THEREFORE BE IT RESOLVED, the City of Spring Hill Board of Mayor and Aldermen:

1. Approve Amendment No. 1 attached hereto with CT Consultants at a not-to-exceed amount of \$26,760.00 for additional survey services and \$64,500.00 for the FEMA No-Rise Submittal for a total of \$91,260.00 as outlined in Attachment “A” .
2. Authorize the Mayor to sign the amendment.

Passed and Adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 19^h day of September, 2022.


Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



REQUEST: *Approval of Resolution 22-205*

SUBMITTED BY: Missy Stahl, CIP Manager
Tony Tolstedt, ACA

DATE: September 19, 2022

RE: To approve Amendment No. 1 with CT Consultants to provide additional survey services and complete the associated services associated with the No-Rise Submittal to FEMA and to authorize the Mayor to sign the amendment

ATTACHMENTS: Amendment No. 1

PURPOSE:

To approve Amendment No.1 to the Professional Services Agreement with CT Consultants CT Consultants for the preparation of additional Survey services and the submission of a No-Rise FEMA Submittal.

BACKGROUND:

The City of Spring Hill is in receipt of a professional services agreement proposal with CT Consultants for additional survey services and No-Rise FEMA Submittal Services pertaining to the Harvey Park Greenway Project. The proposed changes include additional survey services and No Rise FEMA Submittal as outlined in Attachment "A" for the Harvey Park Greenway Design Project. The proposed scope of services would provide topographic/as-built surveys, stream service / wetland delineation, and drafting /base map revisions for fees totaling \$26,760.00. The additional No-Rise FEMA submittal would include the initial flood plain impacts review, hydrologic analysis, report preparation, and CLOMR/LOMR services not to exceed \$64,500.00.

Pursuant to the attached documentation, TDOT has denoted this as a requirement of the project moving forward pursuant to comments received from the June 16, 2022 preliminary plan submission to TDOT. Provision of the additional survey work as denoted would fully determine the need for the latter NO-Rise FEMA submittal.

CT Consultants has submitted Amendment No.1 with a total proposed not-to-exceed cost of \$91,260.00.

FINANCIAL IMPACT:



Amendment No.1 would be funded through the 1875 Fund (311-48005-972) via operational transfer from the Adequate Facilities Fund. The addition would be added through budget amendment #1.

STAFF RECOMMENDATION:

Staff recommends approval of Resolution 22-205 to approve Amendment No.1 with CT Consultants for Harvey Park Greenway Design Project and to authorize the Mayor to sign the amendment at a not-to-exceed cost of \$91,260.00.



August 1, 2022

Ms. Missy Stahl
CIP Manager, City of Spring Hill
199 Town Center Parkway
Spring Hill, Tennessee 37174

RE: SCOPE AND FEE PROPOSAL- CONTRACT MODIFICATION #1
Harvey Park Greenway Project- Phase 1
CT Project No. 190973
Resolution 19-206

Dear Missy:

As CT continues to move forward with the above referenced project, it has been determined that additional survey and design services are required related to floodplain impacts and permitting relating to local and FEMA requirements.

PROJECT UNDERSTANDING:

The project includes the construction of an approximate 1.3 mile shared-use path that extends from Miles Johnson Parkway to Campbell Station Parkway and Wilkes Lane in Spring Hill, TN. The purpose of the trail is to provide connectivity between Harvey Park and the residential and commercial districts along McCutcheon Creek. The path is anticipated to traverse across FEMA floodplain and floodway as well as unmapped floodplain and floodway that are within State of Tennessee regulations. Initial review suggests that the currently mapped floodplain may not include the existing crossings of McCutcheon Creek as the roadway elevations are above the floodplain elevations per Google Earth and Preliminary Design information and the delineations pass smoothly through these areas with no narrowing and possible backwater impacts from those crossings. The design team was notified that a FEMA No-Rise Study would be required in part of TDOT's plan review comments of our June 16, 2022 Preliminary Plan submission to TDOT. The design team confirmed the requirements of the No-Rise Submittal to FEMA with the State NFIP Coordinator.

During the NEPA preliminary design process, the project team was informed of 100' wide water quality buffer area that was created in part of the stream mitigation plan for the existing creek behind Wal-Mart. The buffer area prohibits any disturbance inside the 100' buffer zone. The design team has included a revised alignment in the June 16, 2022 Preliminary Plan submission to TDOT that avoids the buffer using GIS data provided by the City however, additional field survey along the alignment would be required. Similarly, additional topographic survey in other smaller areas where alignment changes have been in part of the preliminary design process is necessary. Additional field survey is also necessary to pick-up as-built conditions of the portion of the proposed path recently constructed by the private development, Belshire Village. Terracon has flagged the wetlands areas in part of the NEPA field review and the wetland flagging is to be surveyed so that it can be added to the project base mapping in order to determine the extent of the anticipated wetland impacts.

Harvey Park Greenway Project
 TIP Project #2018-26-074

SCOPE OF SERVICES:

CT has identified several tasks that are required for the additional survey and to identify the impacts of the current pathway alignment and waterway crossings. **The Lump Sum Fee for the additional survey services is \$26,760 whereas CT proposes to complete the services associated with the No-Rise Submittal to FEMA Itemized below for a total fee not to exceed \$64,500.**

Task	Fee
Addittonal Survey	
Additional Topographic & As-Built Survey	\$10,200
Stream Survey / Wetland Delineation	\$15,000
Drafting/Base Mapping Revisions	1,560
Total Lump Sum Fee::	\$26,760

Task	Fee
No-Rise FEMA Submittal	
Initial Floodplain Impacts Review	\$10,500
Hydraulic Analysis	\$30,500
Report Preparation	\$8,000
CLOMR/LOMR	\$15,500
Not to Exceed Fee (Time & Expense):	\$64,500

ADDITIONAL SURVEY

CT will perform the following:

- Survey the as-built conditions of the portion of the proposed path recently constructed by the private development, Belshire Village. It is anticipated that a cross-section will be picked up at approximate 200' increments with more emphasis being placed on the proposed tie-in locations.
- Pick-up of additional topographic survey in the following areas:
 - Area just north of Miles Johnson Parkway
 - Area just west of the stormwater detention basin behind Lowes
 - Area immediately south of the recently installed asphalt greenway that was installed (north of Lowes and west of Bee Safe Storage)
 - Area immediately north of the recently installed asphalt greenway
 - Area on the west side of the stream behind Wal-Mart
 - Area between the wetlands/woods and the detention basin behind Publix. This was regraded after our original survey was performed
- Locate wetland flagging placed by Terracon in areas of the proposed alignment
- Stream survey for McCutcheon Creek from approximately 1,100 LF SE of Main Street to the northerly property line of Belshire Village (approximately 6,000 LF) and the tributary section of McCutcheon Creek from Belshire Village to Wilkes Court (approximately 3,800 LF). The purpose of the stream survey is to map the location of the stream banks and to define the cross-section

of stream bed for the No-Rise FEMA submittal. The stream survey will also include obtaining structure details of all stream crossings. One bridge and 6 culvert crossings is assumed.

INITIAL FLOODPLAIN IMPACTS REVIEW:

CT will review the pathway alignment and grade in relation to the mapped and non-mapped floodplain/floodway regulations per the State and FEMA regulations. The intent is to minimize any impacts to the floodplain prior to hydraulic analysis and prevent multiple modeling efforts that can cause scope creep in this type of project. In order to complete this task, CT will perform the following:

- Obtain existing FEMA hydraulic models.
- Survey the centerline alignment of the waterways along the project area and obtain bathymetric channel cross sections for data not obtainable within LIDAR data sets
- Survey any crossings of the waterways for opening size, road overtopping and railing impacts.
- Review existing floodplain/floodway limits identified by FEMA against current waterway alignments.
 - Current FEMA mapping limits do not appear to account for existing crossings and corresponding backwater conditions since roadways elevations appear to be above the floodplain elevation.
- Develop unmapped waterway floodplain/floodway limits per state regulations on tributary waterway
- Enhance the project survey with available LIDAR to extend to the 500 ft. beyond the determined floodplain limits.
- Review current pathway crossings, alignment and profile to identify portions of the project that could impact the existing floodplain elevations by way of fills or crossings.
- Review options to adjust alignment or profile to eliminate fills in the floodway (primary) and floodplain (secondary)

HYDRAULIC ANALYSIS:

Review existing hydraulic models and develop model updates as necessary for possible no adverse impact analyses per FEMA standards. This task currently assumes that any model provided by FEMA will be in PDF printouts of older HEC-2 modeling analyses and will require conversion to updated HEC-RAS software. When modeling analysis is performed to analyze No Adverse Impact (NAI) scenarios, FEMA requires several models be developed for their review of Conditional Letters of Map Revision (CLOMR) and Letters of Map Revision (LOMR). This hydraulic review process is the same even when there is NAI by the proposed design. Each model will include the 100 year floodway analysis and the Corrective, Existing, and Proposed will include floodplain mapping. The models required are:

- Duplicate Effective Model – This recreates the current historical model in current available software
- Corrective Effective Model – This modifies the Duplicate Effective Model based on more detailed information such as LIDAR surfaces, full floodplain width cross sections, alignment adjustments, or other model deficiencies due to new technologies or errors identified in the historical model.

Harvey Park Greenway Project
TIP Project #2018-26-074

- Existing Conditions Model – This updates the Corrective Effective model based upon current stream conditions such as culvert/bridge crossings, overbank friction changes due to development. This model is an “as is” condition regardless if LOMRs were obtained when the crossings were installed. This model will better define the floodplain and floodway elevations to consider for final design and profile considerations.
- Proposed Conditions Model – This model adjusts the floodplain based on cuts and fills due to the pathway, new crossings, and possible boardwalk structure.

In order to complete this task, CT will perform the following:

- Convert historical model data into HEC-RAS and develop the Duplicate Effective Model.
- Review model for deficiencies and more detailed information updates.
- Update model with updated surface and stream alignment information for a Corrective Effective Model. Updates will include cross sections every 500 feet per FEMA modeling requirements from survey and LIDAR information with cross sections modified to include field collected channel shape details.
- Add crossings or any stream/floodplain modifications to create the Existing Conditions Model.
- Review possible pathway adjustments to alignments and profiles based upon revised floodplain/floodway limits.
- Develop the Proposed Conditions Model with any floodplain fills/cuts, new crossing, and boardwalk structures.
- Map floodplain and floodway limits for impact analysis of proposed conditions.
- Review any impacts for acceptance through the CLOMR process if they do not affect insurable structures.
- Identify properties that require notice of floodplain impacts.

REPORT:

CT will provide a report that includes the results of the hydraulic analysis. This report will be developed to supplement a possible FEMA CLOMR application or local/state regulatory floodplain permit review. The report will include the following:

- Pertinent FEMA Flood Insurance Study data for model development
- Model development discussions
- Existing and proposed conditions model analysis summaries
- Floodplain/floodway mapping
- Existing and proposed conditions hydraulic analysis data.

MEETINGS:

CT anticipates at least 3 meetings, which the hydraulics team will attend virtually, through the project process to discuss the following:

- Fill and pathway alignment alternatives
- Floodplain analysis results

Harvey Park Greenway Project

TIP Project #2018-26-074

- CLOMR/LOMR application process

CLOMR/LOMR:

This task includes development and coordination of a FEMA CLOMR application prior to construction and FEMA LOMR application post construction. This task assumes that some impact may occur, but does not impact any insurable structures and that the CLOMR process will be required with property owner impact notification. Cost for this task assumes that the project will be constructed and as-built as designed. Any deviation from the design will require an update to the analysis and report to confirm floodplain impacts. Costs do not include FEMA application fees. It should also be noted that the review process with FEMA can take 6 months or longer. Costs for this task are based upon FEMA having minimal comments and updates to report acceptance with one planned package revision.

In order to complete this task, CT will perform the following:

- Develop CLOMR application submittal package
- Coordinate with FEMA through the review process
- Develop LOMR application submittal package (requires as-built drawings)
- Coordinate with FEMA through the review process

SCHEDULE:

The following are the anticipated milestones for the above additional services based on an anticipated Notice to Proceed (NTP) date of August 5, 2022.

Milestone	On or Held By Date
CM #1 Notice to Proceed (NTP)	8/5/2022
Begin Field Survey	8/12/2022
Complete Field Survey	9/9/2022
Update Base Mapping	9/16/2022
Initial Floodplain Impacts Review Complete	9/30/2022
Hydraulic Analysis Complete	11/25/2022
Hydraulic Analysis Report Complete	12/30/2022
FEMA CLOMR application (prior to construction)	TBD
FEMA LOMR application (post construction)	TBD

ASSUMPTIONS and EXCLUSIONS:

Development of this proposal assumes the following:

- The FEMA available model for the current Flood Insurance Study is in a HEC-2 printout format.
- The current model/mapping in the project area does not include existing crossing impacts.
- As-built survey of the proposed improvements.
- The proposal does not include FEMA application fees. It should be noted that current FEMA application fees are as follows, but subject to change:
 - Flood Insurance Study (FIS) Data Requests- FEMA charges an initial fee of \$300 to initiate the request. FEMA's final fee charges is calculated as a sum of the standard per-product charge plus a per-case surcharge of \$93, to help recover library maintenance and archiving costs. The initial flat

Harvey Park Greenway Project
TIP Project #2018-26-074

fee will be applied against the total costs to process the request, and FEMA will invoice the requester for the balance plus the per-case surcharge before the data are provided

- o CLOMR \$6,750
- o LOMR \$8,250

Upon reviewing the information contained in this proposal, if you have any questions, please do not hesitate to contact me at (615) 349-4025 or JGoliias@ctconsultants.com. We thank you in advance for your consideration and look forward to the opportunity of working with you and the City on this impactful project.

Sincerely,

CT CONSULTANTS, INC.

James G. Goliias, II, PE
Regional Manager

JG/spr
Attachment: