AMENDMENT NO. 4 AGREEMENT FOR ENGINEERING SERVICES RAW WATER SUPPLY EVALUATION CROSSVILLE, TENNESSEE

WHEREAS, there exists an AGREEMENT captioned "Agreement for Engineering Services – Raw Water Supply Evaluation" dated July 11, 2017 by and between the CITY OF CROSSVILLE, TENNESSEE as OWNER and J. R. WAUFORD & COMPANY, CONSULTING ENGINEERS, INC. as ENGINEER; and

WHEREAS, the scope of Amendment No. 3 resulted in 1) the completion of a baseline environmental assessment leading to a Stream Functional Loss Determination Report, an Approved Jurisdictional Determination Request, a Hydrologic Determination, and an Acoustic Survey for the Indiana Bat and Northern Long-Eared Bat and 2) a Phase I Cultural Resources Report, all for the area that may be impacted by raising the normal water level in the Meadow Park Lake and all related to an application for a Section 404 Department of the Army Permit application and a Section 401 Water Quality Certification request; and

WHEREAS, that the OWNER is desirous of employing the ENGINEER to provide engineering and administrative services related to the completion of the Section 404 Department of the Army Permit application and a Section 401 Water Quality Certification request, along with preparation of a preliminary engineering report of potential dam construction types and associated costs; and

WHEREAS, the OWNER and the ENGINEER desire to modify the AGREEMENT to add consideration for this additional scope.

NOW THEREFORE, the OWNER and the ENGINEER agree as follows:

- 1. Add the following as Paragraph 1.3:
 - "1.3 COMPLETION OF SECTION 404 DEPARTMENT OF THE ARMY PERMIT APPLICATION AND SECTION 401 WATER QUALITY CERTIFICATION REQUEST
 - a. Scope of Work

The ENGINEER shall provide engineering and administrative services needed to perform the following activities related to the completion of the Section 404 Department of the Army Permit application and the Section 401 Water Quality Certification request for which investigative work was performed under the terms of Paragraph 1.2.

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- 1) Continue to lead negotiations with Tennessee Department of Environment and Conservation to minimize the scope of required mitigation
- 2) Assist City of Crossville in negotiating a contract with Davey Resource Group (David Jackson and staff in Nashville office) for support in negotiating mitigation scope with Tennessee Department of Environment and Conservation
- 3) Assist City of Crossville in procuring a mitigation contractor
- 4) Coordinate preparation of mitigation plan by City of Crossville's mitigation contractor
- 5) Prepare alternatives analysis for a Department of the Army Section 404 Permit application and for a Section 401 Certification request including any necessary drought probability modeling and safe yield analysis modeling
- 6) Prepare a draft Department of the Army Section 404 Permit application and a draft Section 401 Water Quality Certification request for informal review and comment by appropriate federal and state agencies
- 7) Revise draft Department of the Army Section 404 Permit application and Section 401 Water Quality Certification request to incorporate comments by appropriate federal and state agencies and submit final Permit application to US Army Corps of Engineers and final Certification request to Tennessee Department of Environment and Conservation
- 8) Assist the City of Crossville with procurement of property needed to construct the raised Meadow Park Lake reservoir

b. <u>Compensation</u>

The OWNER agrees to pay the ENGINEER at the ENGINEER'S standard hourly rates in accordance with Attachment No. 1 for the work described at Paragraph 1.3.a. Due to the influences of the various regulatory agencies on the level of effort required to perform the work described at Paragraph 1.3.a., a budget amount of \$150,000 (One Hundred Fifty Thousand Dollars) is established with the anticipation that this work can be completed for this amount."

2. Add the following as Paragraph 1.4:

"1.4 PRELIMINARY ENGINEERING REPORT OF POTENTIAL DAM CONSTRUCTION TYPES AND ASSOCIATED COSTS

a. <u>Scope of Work</u>

The ENGINEER shall provide preliminary engineering services needed to perform the following activities related to preparation of a preliminary engineering report of potential dam construction types and associated costs.

- 1) Review of available record information pertinent to the development of alternatives for dam renovation or replacement.
- 2) Performance of a geologic desktop study utilizing publicly accessible geologic maps, topographic maps and LiDAR imagery followed by a one week field reconnaissance.
- 3) Performance of a hydrologic and hydraulic analysis, including a "sunny day breach" analysis, and preliminary hazard class assessment in order to determine if a high hazard classification of the proposed dam is appropriate.
- 4) Development of the engineering surveying scope of work. The deliverable from this activity will be the Surveying Scope of Work.
- 5) Development of a schematic alternative to renovate the existing dam and a schematic alternative for a replacement dam along a downstream alignment, along with preliminary construction cost estimates. The deliverable from this activity will be the Dam Alternatives Analysis Report.
- 6) Development of a scope of work for a geotechnical exploration of the proposed dam site along with a budgetary estimate of cost to perform the geotechnical exploration. The deliverable from this activity will be the Geotechnical Exploration Plan.

b. <u>Compensation</u>

The OWNER agrees to pay the ENGINEER the lump sum amount of \$150,000 (One Hundred Fifty Thousand Dollars) for the performance of the scope of work described at Paragraph 1.4.a."

3. All other provisions of the AGREEMENT shall remain in full effect.	
IN WITNESS WHEREOF they have day of	e executed this AMENDMENT NO. 4 this, 2023.
ENGINEER:	OWNER:
J. R. WAUFORD & COMPANY, CONSULTING ENGINEERS, INC.	CITY OF CROSSVILLE, TENNESSEE
BY: J. Gregory Davenport, P.E. President	BY: R. J. Crawford Mayor
ATTEST:	ATTEST:
Stephen C. Lee Corporate Secretary	Valerie Hale City Clerk
Attachment:	

Attachment No. 1: Standard Charges dated January 1, 2023