

ADDENDUM
To
Proposal-Contract for Professional Services No. P-16-004
With Marks Enterprises of NC, PLLC

THIS ADDENDUM (the "Addendum") supplements and modifies the Proposal-Contract for Professional Services between the Town of Lake Lure, NC (hereafter referred to in this Addendum as "Town") and Marks Enterprises of NC, PLLC (hereafter referred to in this Addendum as "Marks") that was executed by the Town and Marks on December 14, 2016 and that pertains to services provided by Marks to the Town to the by Marks to perform a Dam Safety Investigation and Report for the Lake Lure Dam, Hydroelectric Facilities and Other Major Appurtenances.

Whereas the NCDEQ Dam Safety Office (DSO) performed a detailed review of the Dam Safety Investigation Report prepared by Marks and issued a letter to Marks on May 21st, 2018 that requested certain items be addressed prior to issuance of an approval to repair, modify, or breach the lake Lure Dam, and;

Whereas the NCDEQ Dam DSO's letter of May 21st, 2018 requested certain actions be taken be taken by August 1, 2018 recognizing that the Hurricane Season for this year is quickly approaching, and;

Whereas a significant storm event has occurred since May 21st, 2018 that had potential to cause additional deterioration and/or damage to the Lake Lure Dam not previously addressed by Marks' Safety Investigation Report, and;

Whereas both the NCDEQ DSO and Marks had performed post-storm visual inspections of the Lake Lure Dam and found no visual evidence of additional deterioration or damage, and;

Whereas a storm event impact assessment report has not been prepared to document the results of the post-storm visual dam inspections by NCDEQ DOS and Marks, nor has post-storm monitoring data from pieziometric monitoring stations, seepage flow rates and other physical measurements been recorded and compared with the pre-event data compiled by Marks during his Dam Safety Investigation of the Lake Lure Dam to supplement the post-storm visual inspection results;

NOW THEREFORE, IN CONSIDERATION of the mutual terms and conditions of this

- 1. Work Scope & Deliverables:** Marks will perform all necessary research, investigations, analyses and documentation required to prepare the deliverable documents defined below. During the preparation of the documents as needed

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The image shows two handwritten signatures or initials. The first is in black ink and appears to be 'JPL' or similar. The second is in blue ink and appears to be 'AM' or similar. They are written over horizontal lines.

Marks will coordinate with NCDES DOS to determine their requirements for acceptance of the documents. Prior to submitting the documents to NCDEQ DOS, Marks will submit the documents in draft form to the Town for review and comment and Marks will coordinate with the Town as needed to address the Town's comment. Marks will then submit the documents to NCDEQ DOS and respond to with NCDEQ DOS review comments. If necessary marks will make appropriate revisions to the documents required for NCDEQ DOS acceptance.

- a. **Updated Emergency Action Plan** for the Lake Lure Dam that complies with the requirements of NCDEQ DOS and includes updated maps of the inundation area and those structures at risk should a failure occur.
 - b. **Hydrologic and Hydraulic (H&H) model and Report** for the Lake Lure Dam that determines and documents: (1) the size of the storm event that the dam can safely pass without overtopping the dam; (2) whether or not the surface water elevation of Lake Lure should be lowered before the active Hurricane season and following season; (3) how quickly the water surface elevation of Lake Lure could be lowered in the event that an extreme weather event was approaching the dam, and (4) an active plan for lowering the water surface of Lake Lure for extreme weather events.
 - c. **Post-storm Impacts Report** for the Lake Lure Dam that determines and documents: (1) whether or not additional damage and deterioration has occurred as a result of the effects of Tropical Storm Alberto on the dam based on visual observation and by comparison of pre-storm and post-storm measurement an monitoring data; (2) the procedures followed by the Town to operate the dam and regulate the lake levels prior to and during the tropical storm event with advice and guidance from Marks and; (3) lessons-learned and recommended changes to how the dam should be operated in the future when severe storm events occur.
- 2. Professional Fees for Services:** Upon successful completion of the work performed by Marks to produce the deliverables described under 1 above and within 30 calendar days after acceptance by the Town of the deliverables so described, the Town will remit payment to Marks the following professional fees:
- a. Updated Emergency Action Plan and H& H Model / Report: **\$35,000.00**
 - b. Post Storm Impacts Report: **\$5,000.00**

It is acknowledged that these professional fees to be remitted to Marks for the services provided by Marks include all time and expenses under this Addendum including meetings, travel, document production, shipping/postage, and subcontract services.

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The undersigned parties to this ADDENDUM hereby acknowledge and accept the terms
of this ADDENDUM.

TOWN OF LAKE LURE

By: 

Kevin J. Cooley, Mayor

ATTEST:



Michelle Jolley, Town Clerk

This instrument has been pre-audited in the manner required by the Local Government
Budget and Fiscal Control Act.



Sam Karr, Finance Director

This instrument has been
preaudited in the manner required
by the Local Government Budget
and Fiscal Control Act

AGREED AND ACCEPTED this the 10th day of July, 2018

MARKS ENTERPRISES OF NC, PLLC



B. Dan Marks, Ph.D., P.E., Principal

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