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**Public Works**

**City Transit**  
**263-8152**

**MEMORANDUM**

**Equipment Maintenance**  
**Roadway Maintenance**  
**Collection & Drainage**  
**Building & Grounds**  
**Engineering**

To: Brian Stineman, Public Works Director  
FROM: Jim Edgmond, City Engineer  
DATE: March 8, 2017  
RE: Supplemental Agreement Approval for Mississippi Drive Preconstruction  
Archeological Survey Work and Vibration Monitoring Work During Construction

**INTRODUCTION:**

The City has a current contract with Impact7G to do National Environmental Policy Act (NEPA) related work on Mississippi Drive Corridor. As part of that contract they will be subcontracting the vibration monitoring and preconstruction condition surveys required by the state. Attached is the agreement with Impact7G and their sub Kleinfelder, Inc. to perform this work.

**BACKGROUND:**

As part of the NEPA process the City entered into a memo of understanding (MOA) with the state to do these preconstruction surveys and vibration monitoring on the project. This is to protect the City from damage claims due to excessive vibration and also to document the strength of the vibrations reaching the structures of interest that are identified in the memo of agreement. This work will be performed while the contractor is working close to the identified structures. The supplementary agreement is for \$139,000.00. There is \$150,000.00 budgeted for this work for the project.

**RECOMMENDATION/RATIONALE:**

Recommend city council enter into this supplementary agreement with Impact 7G to do this preconstruction survey work and vibration monitoring work required by the state. The amount of this work is \$139,000.00.

**BACKUP INFORMATION:**

1. Professional Services Agreement



## Professional Services Agreement

Project:	Muscatine, Mississippi Drive Construction, Historic Structures Vibration Monitoring	Location:	Muscatine, Iowa
		Date:	3/07/2017

Client:	City of Muscatine
Contact:	Jim Edgmond, City Engineer
Address:	1459 Washington Street
City/State/Zip:	Muscatine, IA 52761
Phone:	(563) 260-5724

AGREEMENT made this 7<sup>th</sup> day of March, 2017, by and between the service provider, Impact7G, Inc. ("Provider"), and the Client, City of Muscatine ("Client.")

WHEREAS, the Client intends to engage the services of the Provider to complete Mississippi Drive construction period vibration monitoring per Memorandum of Agreement requirements stipulated between the Federal Highway Administration (FHWA) and the Iowa State Historic Preservation Office (SHPO) regarding the Mississippi Drive Corridor Reconstruction Project, City of Muscatine, Muscatine County [STP-U-5330(614)—70-70], Iowa SHPO Review and Compliance #20080170073;

WHEREAS, the Provider staff have significant experience with transportation improvements-related environmental studies and working with the Iowa DOT and Federal Highway Administration cultural resource requirements including Section 106 coordination, architectural and archeological investigations, DOT Act Section 4(f) Statements, and MOAs;

WHEREAS, Provider subconsultant (Kleinfelder, Inc.) staff have requisite structural engineering competencies and vibration experience to assist Provider with pre-construction structure surveys, monitoring, and post-construction surveys;

WHEREAS, the intent of this effort being compliance with the above stated MOA;

WHEREAS, the Provider agrees to provide said services pursuant to the terms of this Agreement.

NOW THEREFORE, the parties agree as follows:

### 1. Project

The City of Muscatine is planning the Mississippi Drive Corridor Reconstruction Project that includes the reconstruction of 1.6 miles of U.S. Highway 61-Business. From the Client's request, Provider understands the section of interest includes the following two phases of construction. Phase 1 is from Pine Street to Iowa Street that will start mid-April 2017 with an approximately a 4-month duration, and Phase 2 is from Iowa Street to Mulberry Avenue that will start after completion of Phase 1 and continue through the Fall. This project is the Downtown Area Improvement that includes roadway work intended to improve flood protection, pedestrian crossings and sidewalk



improvements, vehicle crossings, trails, fencing, and lighting. Provider further understands that there are twenty-one historic buildings and structures along the proposed entire reconstruction alignment that have been identified as needing pre-construction building assessment and vibration monitoring due to their historic significance and as documented in the MOA between FHWA and Iowa SHPO. Of the twenty-one structures specified in the MOA, fourteen are within the initial two construction phases of the project. These structures are:

1. Commercial Building at 417 E 2nd St
2. Commercial Building at 515 E 2nd St
3. Barry Manufacturing Office at 419 E 2nd St
4. Mull Wholesale Grocery / Mull, Charles & Sons at 228 W 2nd St
5. Fisher-Foley Tin Shop at 117 Chestnut St
6. Gaeta Fruit Store and Confectionary at 107 Iowa Ave
7. Fitzgerald Block at 109-111-113 Iowa Ave
8. Musser House at 501 E Mississippi River Dr
9. Hotel Muscatine at 101 W Mississippi River Dr
10. Bennett Mill at 221-225 W Mississippi River Dr
11. Isett Warehouse / Green & Stone Pork House at 301 W Mississippi River Dr
12. Citizens Electric Light and Power Company at 315-317 W Mississippi River Dr
13. McKibben House at 102-104 Walnut St
14. Papoose Creek Sewer

## 2. Scope of Services

### *Task 1 – Pre-Construction Condition Surveys*

Pre-construction condition surveys document the conditions of a building prior to construction activities. These are useful for both the building owner and the contractor to establish a baseline condition from which to compare claims of damage related to construction. Provider will conduct the surveys on the fourteen structures identified above for Phase 1 and Phase 2 construction activities. The survey will consist of the following for each structure:

- Provider will provide a structural engineer and a geotechnical engineer to conduct the pre-construction condition surveys.
- A video recording of the interior and exterior of the buildings that includes some narration of observations.
- Photographs of the areas of concern mentioned in the video and notes on their approximate size and location.
- These videos and images will be saved to a flash drive or uploaded to an FTP site and provided to the Client for the Client's future reference.
- Throughout the pre-construction condition survey process, Provider will look for exposed physical distresses in structural components. Provider will help identify areas for crack monitors to be placed as necessary prior to construction, and we will install those crack monitors wherever possible during our visit. The crack monitor readings will be recorded when they are placed and again at the end of Phase 1 and the end of Phase 2.
- Based on the current use, condition, and construction of the structures, Provider subconsultant engineers will establish maximum allowable peak particle velocities (PPVs) for each of the structures.

Data collected will be electronically delivered to the Client for their reference. The deliverable for this portion of the project does not include written reports for any of the buildings.

***Task 2 – Monthly Vibration Monitoring***

Provider will install vibration monitors at locations shown below. The systems will be set up for remote monitoring. Initial readings will be recorded to establish a base-line of ambient vibration conditions, after which, there will be continuous vibration/noise monitoring during demolition and construction activities. If predetermined threshold levels for vibration are exceeded the system will immediately send exceedance notifications to your designated representative and Provider personnel. Weekly vibration data reports will be gathered by Provider and designated team members. Vibration levels will be plotted on the USBM RI8507/OSMRE chart.

For the Phase I portion of the construction (Pine Street to Iowa Street), Provider proposes installation of five vibration monitors at the following structures:

- Gaeta Fruit Store and Confectionary at 107 Iowa Ave,
- Fisher-Foley Tin Shop at 117 Chestnut St
- Hotel Muscatine at 101 W Mississippi River Dr,
- Bennett Mill at 221-225 W Mississippi River Dr, and
- Isett Warehouse / Green & Stone Pork House at 301 W Mississippi River Dr

For the Phase II portion of the construction (Iowa Street to Mulberry Street), Provider proposes installation of six vibration monitors at the following structures:

- Papoose Creek Sewer,
- Gaeta Fruit Store and Confectionary at 107 Iowa Ave
- Commercial Building at 515 E 2nd St,
- Barry Manufacturing Office at 419 E 2nd St,
- Musser House at 501 E Mississippi River Dr, and
- McKibben House at 102-104 Walnut St

The remaining structures without monitors are located at a distance further from proposed construction activities than the structures where monitoring is proposed. Therefore, the proposed locations will provide effective monitoring of those structures. Please note that the proposed monitor locations could vary after completion of the pre-construction condition surveys.

***Task 3 – Set Up & Tear Down of Vibration Monitors***

Provider has broken out the fees associated with setting up and tearing down the vibration monitors. This task includes all travel, per diem, labor, and equipment associated with moving the vibration monitors between each phase of construction and is based on a single visit at the start of each phase and single visit after completion of Phase 2. The fee for the initial setup of the vibration monitors is included in the costs for Task 1 – Pre-Construction Condition Surveys.

***Task 4 – Post-Construction Condition Surveys***

Post-Construction Condition Surveys will be conducted on the same fourteen buildings assessed during Task 1. Post-Construction Condition Surveys document the conditions of a building after the completion of construction activities. These are useful for both the building owner and the contractor to compare to the pre-construction baseline condition established in Task 1. The postconstruction condition survey will consist of the following:

- A video recording of the interior and exterior of the buildings that includes some narration of observations.
- Photographs of the areas of concern identified in the pre-construction condition survey and notes on their approximate size and location.
- These videos and images will be saved to a flash drive or uploaded to an FTP site and provided to the Client for the Client's future reference.

- Provider will record the readings on the crack monitors placed during the pre-construction condition surveys.

Data collected will be electronically delivered to the client for their reference. The deliverable for this portion of the project does not include written reports for any of the buildings.

***Task 5 – Professional Engineer Site Visit (if needed)***

Provider's budget includes site visits only for the pre-construction and post-construction surveys and equipment set up and tear down. Based on past experience, situations may occur during construction where the contractor or owner has requested a professional engineer (PE) be on site for an additional visit. In the event Provider's professional engineer is requested to be on site during construction, Provider incorporated estimated cost that includes travel, per diem, and labor for one 8-hour day on site.

***Task 6 – Project Management***

Provider's budget includes estimated project management costs throughout both phases of construction. The estimate was derived by estimating project management and coordination time between Provider and Client as well as Provider and Provider Subcontractor.

**3. Provider Responsibilities. Impact7G hereby agrees to:**

- (i) Provide the professional services as set forth in this Agreement; and
- (ii) Perform said services in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing at the same time and in the same or similar locality.

**4. Client Responsibilities. Client hereby agrees to:**

- (i) Provide a knowledgeable representative of the project area;
- (ii) Provide access to the information related to the proposed project;
- (iii) Provide copies of any previously-completed reports that may be pertinent to completing the Scope of Services for this project including any soils or geotechnical reports;
- (iv) Provide assistance with obtaining property owner contact information to allow Provider to arrange pre- and post-construction condition surveys; and
- (v) Provide or assist with finding electrical outlets for the vibration monitors.

**5. Exclusions. The following services are excluded from this Scope of Service:**

- (i) Preliminary or Final Engineering Design;
- (ii) Legal review and legal advice;
- (iii) Provide means or methods for site work; and
- (iv) Research or investigation as to why a vibration exceedance occurred.

**6. Schedule. The Project will commence immediately upon receipt of the Notice to Proceed ("NTP") from the Client. Provider is prepared to complete Task 1 prior to the proposed construction start date of mid- April 2017 with receipt of notice to proceed by March 15, 2017. The schedule of remaining tasks will be dictated by the schedule of construction activity.**

**7. Project Cost, Payment and Termination. Impact7G will provide services as specified in Section 2, Scope of Services. The breakdown of costs is as follows:**

Professional Services Agreement  
 Muscatine, MS Dr. Vibration Monitoring  
 Muscatine, Iowa  
 3/7/2017

<b>Task</b>	<b>Budget Estimate</b>
Task 1 – Preconstruction Condition Surveys	\$49,500
Task 2 – Monthly Vibration Monitoring	\$38,500*
Task 3 – Setup and Tear Down of Vibration Monitors	\$4,400
Task 4 – Post-Construction Condition Surveys	\$18,700
Task 5 – Professional Engineer Site Visit	\$5,500
Task 6 – Project Management**	\$22,400**
<b>Total</b>	<b>\$139,000</b>

\*Assumes 7 months of monitoring at \$5500/month for up to 6 monitoring stations.  
 \*\*Assumes a project duration of 9 months.

The Client shall pay Impact7G per Impact7G's rate schedule (Exhibit 1) on a cost-plus basis with an estimated fee of one-hundred thirty nine thousand dollars (\$139,000.00). Estimated task item budgets can be reapportioned as necessary to complete the project while maintaining the total project estimated fee of \$139,000.

Invoices for Impact7G's services will be submitted on a monthly basis. Invoices shall be due and payable upon receipt. If any invoice is not paid within 30 days, Impact7G may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, suspend or terminate the performance of services.

Any retainer amounts shall be credited on the final invoice. Accounts that remain unpaid 30 days after the invoice date may be subject to a monthly service charge of 1.5% (or the maximum legal rate) on the unpaid balance. In the event any portion of an account remains unpaid 60 days after the billing, Impact7G may institute collection action and the Client shall pay all costs of collection, including reasonable attorney's fees.

**8. Work Product and Assumptions.** All reports, plans, specifications, field data, field notes, laboratory test data, calculations, estimates and other documents including all documents on electronic media prepared by Impact7G as instruments of service shall remain the property of Impact7G.

All project documents including, but not limited to, environmental reports, maps, and documentation furnished by Impact7G under this project are intended for use on this project only. Any reuse, without specific written verification or adoption by Impact7G, shall be at the Client's sole risk, and Client shall defend, indemnify and hold harmless Impact7G from all claims, damages and expenses including attorney's fees arising out of or resulting therefrom.

Under no circumstances shall delivery of electronic files for use by the Client be deemed a sale by Impact7G, and Impact7G makes no warranties, either express or implied, of merchantability and fitness for any purpose. In no event shall Impact7G be liable for indirect or consequential damages as a result of the Client's use or reuse of the electronic files.

Because electronic file information can be easily altered, corrupted, or modified by other parties, either intentionally or inadvertently, without notice or indication, Impact7G reserves the right to remove itself from its ownership and/or involvement in the material from each electronic medium not held in its possession. Client shall retain copies of the work performed by Impact7G in electronic form only for information and use by Client for the specific purpose for which Impact7G was engaged. Said material shall not be used by Client or transferred to any other party, for use in other projects, additions to this project, or any other purpose for which the material was not strictly intended by Impact7G without Impact7G's expressed written permission. Any unauthorized use or reuse or modifications of this material shall be at Client's sole risk. Furthermore, the Client agrees to defend, indemnify, and hold Impact7G harmless from all claims, injuries, damages, losses, expenses, and attorney's fees arising out of the modification or reuse of these materials.

Provider prepared this proposal using certain assumptions based on our Team's experience with similar projects. Based on information available during our preparation of this proposal, the following assumptions apply:

- Provider is not responsible for directing the contractor under any circumstance. Provider is responsible for collecting and providing data and the not the means and methods associated with any construction activities.
- Provider's scope does not include evaluation why a vibration level exceedance occurred, how to prevent such occurrences, or evaluations beyond the post-construction conditions survey to determine if the vibrations impacted the structures.
- The pre-construction surveys are not intended as engineering assessments of the structural fitness of the structures. These surveys only document the presence of existing visual signs of distress in the structures.
- Provider will perform remote daily checks on each of the active monitors to ensure they are operating.
- Provider is not responsible for any contractor downtime as a result of an exceedance in the acceptable vibration levels.
- Provider assumes access to all monitoring points will be available for the Papoose Creek Sewer structure. Our fees do not include entrance into confined spaces or the sewer system.
- Our services do not include visitations with the jurisdictional agency or plan check services.
- Architectural and civil design services are not part of this proposal. Our structural services are to document the existing conditions for the building and do not include any structural evaluations or calculation.
- Access to all areas of all of the structures will be available and provided by the client. Provider is not responsible for extra time spent on site during access delays. The commercial building at 515 E. 2nd may not be safe to enter. If deemed unsafe, only the exterior of the building will be documented.
- All deliverables will be provided in electronic format. No written reports for the pre or post construction condition surveys will be prepared.
- Field work will be conducted during standard construction hours (6AM-5PM). There is no overtime, night, or weekend work anticipated during construction for our staff.
- Power supply will be available or provided at the monitoring station locations at all times.
- Cellular reception will be available at the monitoring locations.
- Anchors will need to be installed by Provider into the floor to secure the equipment.

8. **Project Site.** For projects involving intrusive archeological investigations, environmental contaminant sampling, investigation and cleanup, the Client agrees that it shall be solely responsible for job site safety, and warrants that this intent shall be made evident in the Client's agreements with any third parties. For these same type of projects, the Client also agrees that Impact7G and Impact7G's consultants shall be indemnified and shall be made additional insureds on the Client's general liability policies on a primary and non-contributory basis.

9. **Claims and Disputes.** Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or Impact7G. Impact7G's services under this Agreement are being performed solely for the Client's benefit, and

no other party or entity shall have any claim against Impact7G because of this Agreement or the performance or nonperformance of services hereunder. The Client and Impact7G agree to require a similar provision in all contracts with contractors, subcontractors, subconsultants, vendors and other entities involved in this Project to carry out the intent of this provision.

The Client shall make no claim for professional negligence, either directly or in a third-party claim, against Impact7G unless the Client has first provided Impact7G with a written certification executed by an independent professional currently practicing in the same discipline as Impact7G and licensed in the State in which the claim arises.

10. **Limited Liability.** The Client agrees, to the fullest extent permitted by law, to limit the liability of Impact7G and Impact7G's officers, directors, partners, employees, shareholders, owners and subconsultants to the Client for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including attorneys' fees and costs and expert witness fees and costs, so that the total aggregate liability of Impact7G and its officers, directors, partners, employees, shareholders, owners and subconsultants to all those named shall not exceed \$150,000. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

11. **Mediation.** In an effort to resolve any conflicts that arise during the planning, design or implementation of the project or following the completion of the project, the Client and Impact7G agree that all disputes between them arising out of or relating to this Agreement shall be submitted to non-binding mediation unless the parties mutually agree otherwise. The Client and Impact7G further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the Project and to require all independent contractors and consultants also to include a similar mediation provision in all agreements with subcontractors, sub-consultants, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements.

12. **Attorneys' Fees.** If litigation arises for purposes of collecting fees or expenses due under this Agreement, the Court in such litigation shall award reasonable costs and expenses, including attorney fees, to the prevailing party. In awarding attorney fees, the Court shall not be bound by any Court fee schedule, but shall, in the interest of justice, award the full amount of costs, expenses, and attorney fees paid or incurred in good faith.

13. **Controlling Law.** This Agreement shall be construed and enforced in accordance with the laws of the state of Iowa.

14. **Assignment.** Neither the Agreement nor any of the rights or obligations arising under the Agreement may be assigned without prior written consent.

Professional Services Agreement  
Muscatine, MS Dr. Vibration Monitoring  
Muscatine, Iowa  
3/7/2017

This agreement is approved and accepted by the Client and Impact7G upon both parties signing and dating the agreement. The effective date of the agreement shall be the last date entered below.

City of Muscatine, IA

IMPACT7G, Inc.

Accepted  
by: \_\_\_\_\_

President:  \_\_\_\_\_

Printed/  
Typed  
Name: \_\_\_\_\_

Printed/  
Typed Name: Ryan Peterson \_\_\_\_\_

Title: \_\_\_\_\_

Date: 3-07-2017 \_\_\_\_\_

Date: \_\_\_\_\_

## Exhibit 1



### 2017 Billing Rate Schedule

<u>Professional Title</u>	<u>Rate</u>
Principal	\$145
Senior Project Manager	\$125
Project Manager	\$110
Drilling Services Manager	\$100
Environmental Specialist II	\$85
Environmental Specialist I	\$70
GIS Technician	\$75
Drilling Technician	\$70
Field Technician	\$55
Intern	\$50
Training Coordinator	\$85
Office Manager	\$70
Administrative	\$45
Certified Industrial Hygienist	\$150

#### Reimbursable Expenses

1. All materials and supplies used in the performance of work will be billed at cost plus 10%.
2. Auto mileage will be reimbursed per the standard IRS mileage reimbursement rate.
3. Charges for sub-consultants will be billed at their invoice cost plus 15%.
4. All other direct expenses will be invoiced at cost plus 15%.