



1450 Washington St  
Muscatine IA 52641-5040  
/563-263-2023  
Fax /563-263-2127

Public Works

City Transit  
263-8152

## MEMORANDUM

To: Brian Stineman, Public Works Director  
FROM: Jim Edgmond, City Engineer  
DATE: February 13, 20186  
RE: Grandview Ave. Project, Agreement for soil borings

Equipment Maintenance  
Roadway Maintenance  
Collection & Drainage  
Building & Grounds  
Engineering

### INTRODUCTION:

The City has solicited proposal from two firms to do soil borings for Grandview Ave. Project. The two Geotechnical firms are Terracon out of Bettendorf, Iowa and Braun-Intertec out of Cedar Rapids, Iowa. Braun has declined to propose on this work as they are extremely busy and do not think they can get the work done within the deadlines established in the proposal.

### BACKGROUND:

When the original scope and plan for Grandview Ave was developed the need for soil borings was identified and it was decided these could be done at a later date and be directly contracted by the City to save money. The soil borings needed for the project have been reviewed by city staff and modified by city staff to reflect a more conservative approach to the project and this proposal reflects this less aggressive geotechnical effort.

The City wishes to control this soil boring process and to have the work done directly with the City to avoid addition costs from the work being processed through a third party.

### Award of Soil Boring Work:

The total cost of Terracon's proposal is \$25,250.00. The proposal has been reviewed by Public Works staff and is recommended to the City Council for approval. These dollars are to come out of the funds budgeted for the Grandview Ave. Project.

### RECOMMENDATION/RATIONALE:

Recommend city council approve this proposal from Terracon in the amount of \$25,250.00

### BACKUP INFORMATION:

none

February 13, 2018



City of Muscatine – Public Works  
1459 Washington Street  
Muscatine, Iowa 52761

Attn: Mr. Jim Edgmond

Re: Proposal for Subsurface Exploratory Borings & Laboratory Testing Services  
Grandview Avenue Improvements  
From Dick Drake Way to Pearl Street  
Muscatine, Iowa  
Terracon Proposal No. P07185025

Dear Mr. Edgmond:

Terracon Consultants, Inc. (Terracon) appreciates the opportunity to submit this proposal to the City of Muscatine (City) to provide subsurface exploratory borings and laboratory testing services for the above referenced project. Terracon has performed numerous projects in the vicinity of Grandview Drive as indicated in the following image, below. Information from selected explorations were reviewed in preparing this proposal.



Terracon Consultants, Inc. 870 40th Avenue Bettendorf, Iowa 52722  
P (563) 355 0702 F (355) 355 4789 terracon.com

Environmental



Facilities



Geotechnical



Materials

Proposal for Subsurface Exploratory Borings & Laboratory Testing Services  
Grandview Avenue Improvements • Muscatine, Iowa  
February 13, 2018 • Terracon Proposal No. P07185025.



Our lump sum fee for the requested scope of services, excluding traffic control, is \$19,250. Traffic control will be invoiced at Cost + 15%; a contingency of \$6,000 could be used for budgeting purposes. Please refer to Exhibit C for further information. The following are exhibits to this proposal and the attached Agreement for Services.

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule

Your authorization for Terracon to proceed in accordance with this proposal can be issued by signing and returning a copy of the attached Agreement for Services to our office. If you have any questions, please do not hesitate to contact us.

Sincerely,

Terracon Consultants, Inc.

  
Sara J. Somsky, P.E.  
for: W. Ken Beck, P.E.

Attachments

cc: Mr. Brian Havens – HDR, Inc.

## AGREEMENT FOR SERVICES

This **AGREEMENT** is between City Of Muscatine IA ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Grandview Avenue Rehabilitation project ("Project"), as described in the Project Information section of Consultant's Proposal dated 02/13/2018 ("Proposal") unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

- 1. Scope of Services.** The scope of Consultant's services is described in the Scope of Services section of the Proposal ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
- 2. Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the Project.
- 3. Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
- 4. Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Compensation section of the Proposal unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
- 5. Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties other than those who have executed Consultant's reliance agreement, subject to the prior approval of Consultant and Client.
- 6. LIMITATION OF LIABILITY. CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. PRIOR TO ACCEPTANCE OF THIS AGREEMENT AND UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION IN THE FORM OF A SURCHARGE TO BE ADDED TO THE AMOUNT STATED IN THE COMPENSATION SECTION OF THE PROPOSAL. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S), OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.**
- 7. Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's Services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of Services on the project.
- 8. Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 9. Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance (\$1,000,000); (ii) commercial general liability insurance (\$1,000,000 occ / \$2,000,000 agg); (iii) automobile liability insurance (\$1,000,000 B.I. and P.D. combined single

limit); and (iv) professional liability insurance (\$1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.

10. **CONSEQUENTIAL DAMAGES.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.
11. **Dispute Resolution.** Client shall not be entitled to assert a claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Kansas law.
12. **Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
13. **Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client shall cause all tests and inspections of the site, materials, and Services performed by Consultant to be timely and properly scheduled in order for the Services to be performed in accordance with the plans, specifications, contract documents, and Consultant's recommendations. No claims for loss or damage or injury shall be brought against Consultant by Client or any third party unless all tests and inspections have been so performed and Consultant's recommendations have been followed. Unless otherwise stated in the Proposal, Client assumes sole responsibility for determining whether the quantity and the nature of Services ordered by Client is adequate and sufficient for Client's intended purpose. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by Services not performed due to a failure to request or schedule Consultant's Services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods. The extension of unit prices with quantiles to establish a total estimated cost does not guarantee a maximum cost to complete the Services. The quantities, when given, are estimates based on contract documents and schedules made available at the time of the Proposal. Since schedule, performance, production, and charges are directed and/or controlled by others, any quantity extensions must be considered as estimated and not a guarantee of maximum cost.
14. **Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of the testing procedures (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Materials unless specifically provided in the Services, and that Client is responsible for directing such disposition. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site and Consultant shall not be responsible for any claims, losses, or damages allegedly arising out of Consultant's performance of Services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
15. **Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
16. **Utilities.** Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
17. **Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any other parties, including Client, Client's contractors, subcontractors, or other parties present at the site.

Consultant: Terracon Consultants, Inc.  
 By: Sara Somsky Date: 2/13/2018  
 Name/Title: Sara J Somsky / Geotechnical Department  
Manager  
 Address: 870 40th Ave  
Bettendorf, IA 52722-1607  
 Phone: (563) 355-0702 Fax: (563) 355-4789  
 Email: Sara.Somsky@terracon.com

Client: City Of Muscatine IA  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name/Title: Jim Edmond  
 Address: Public Works 1459 Washington St.  
Muscatine, IA 52761  
 Phone: (563) 260-5724 Fax: \_\_\_\_\_  
 Email: jedmond@muscatinelowa.gov

## EXHIBIT A - PROJECT UNDERSTANDING

Our scope of services is based on our understanding of the project as described by City and HDR, Inc. (HDR), and the expected subsurface conditions as described below. We have not visited the project site recently to confirm the information provided. Aspects of the project that are currently undefined are highlighted below. We request the design team verify this information prior to our initiation of field exploration activities.

### Site Location and Anticipated Conditions

Item	Description
Parcel Information	The project limits extend from Dick Drake Way to Pearl Street in Muscatine, Iowa.
Site Conditions	asphalt pavement with crushed limestone shoulders or concrete curb/gutter
Current Ground Cover	asphalt overlay/portland cement concrete
Existing Topography	Based on the Plan and Profile sheets provided in the Request for Proposal (RFP), maximum grade changes on the order of 5 feet (primarily cuts) are expected along the alignment.
Site Access	We expect the site and boring locations to be accessible to our drilling equipment.
Expected Subsurface Conditions	Based on our experience in the vicinity of the project site, we expect the existing fill and native clay soils below the existing pavement. Native sands are expected around a depth of 15 feet.

### Planned Construction

Item	Description
Project Description	We understand that the existing Grandview Avenue will be reconstructed to include sidewalks. Cuts of up to 5 feet are expected at the centerline of the roadway.

## EXHIBIT B - SCOPE OF SERVICES

Our services will consist of a field exploration, laboratory testing, and project delivery. No engineering evaluations or analyses were requested and are not included in our scope of services. The requested scope of services is described in the following sections.

### Field Exploration

HDR requested the following boring locations and depths:

Borings	Number of Borings	Planned Boring Depth (feet) <sup>1</sup>
B-1 to B-34 <sup>2</sup>	26	10
	8	15
B-35 to B-44 <sup>3</sup>	10	15
<b>Project Total</b>	<b>44</b>	<b>530</b>

1. below ground surface
2. Borings B-18, B-25, B-28, B-30, B-32, and B-33 will have planned depths of 15 feet; Borings B-3 and B-12 will extend to native sand, which is anticipated at an approximate depth of 15 feet.
3. Contingency borings to be drilled per HDR direction; locations not provided.

**Boring Layout and Elevations:** We understand that the project surveyor will locate the borings in the field. Northing and Easting coordinates and ground surface elevations were provided in the RFP.

**Site Access:** Terracon must be granted access to the site by the City. Terracon requires any permits needed by the City to perform the field exploration will be provided by the City. Without information to the contrary, we consider receipt of notice to proceed as authorization to access the property for conducting field exploration in accordance with the scope of services.

**Traffic Control:** Our fee includes providing traffic control, including flaggers and signage, for the borings performed along Grandview Avenue. To reduce costs, the City could provide flaggers and traffic control for the project. Our fee is also based on performing the borings between the hours of 7 am and 6 pm. We should be contacted if there are any restrictions regarding the hours we can perform the borings. Upon request, we are available to discuss this with you further.

**Subsurface Exploration Procedures:** We will advance the borings using continuous flight augers (solid stem and/or hollow stem, as necessary, depending on soil conditions). Samples will be obtained at intervals of 2½ feet. Sampling will be performed using thin-wall tube and/or split-barrel sampling procedures. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge is pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split barrel sampling procedure, a standard 2-inch outer diameter split barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling a

distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. The samples will be containerized, taken to our laboratory for testing, and classified by the project engineer. Up to 6 bulk samples will be obtained from cuttings of similar materials from the boreholes; additional borings to obtain bulk samples are not included in our fee. In addition, we will observe and record subsurface water levels during and after drilling each boring. Due to safety concerns, boreholes will be backfilled and capped with asphalt patch upon completion of each borehole; delayed water levels will not be obtained.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information, visual classifications of materials encountered during drilling, and our interpretation of subsurface conditions between samples. Boring logs included in our completed report will be prepared from the field logs will represent the project engineer's interpretation, and include modifications based on observations and laboratory tests.

We understand that the double-ring infiltrometer testing is no longer required. HDR will use the grain size testing information to classify the selected samples in accordance with the USDA textural system and obtain infiltration rates from tables.

**Property Disturbance:** We will backfill borings with auger cuttings, sand, and/or bentonite chips after completion; boreholes will be patched with like-material. Our scope of services does not include costs for repair of damage to pavements. It should be understood that when temperatures drop below freezing, the cuttings may freeze such that it may not be possible to get all of the material back into the boreholes, or to remove them from the boring locations (frozen in place). Our services do not include repair of the site beyond backfilling our boreholes, and cold patching existing pavements. Excess auger cuttings will be dispersed in greenspace in the general vicinity of each borehole. Because backfill material often settles below the surface after a period, we recommend that boreholes are checked periodically and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request.

### **Laboratory Testing**

Laboratory testing of the samples will be determined by HDR, but our fee includes 45 natural water contents, 30 Atterberg limits tests, 18 sieve (with hydrometer) analyses, 9 unconfined compressive tests on thin-walled tube samples, 6 standard proctor tests, and 6 CBR tests. Any additional testing will be performed for an additional fee. In addition, if a sufficient amount of bulk sample is not available at the location selected by HDR, our fee does not include mobilizing to obtain additional samples. Similar soils from other boring will be combined if this situation occurs.

## **Safety**

Terracon is aware there could be some environmental concerns along the 4-lane section of the alignment that could create health or safety hazards associated with our exploration program; however, our scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our scope of services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report. If impacted soil or water is encountered, we will contact you prior to performing further borings in this area.

Terracon will call the Iowa "One Call" to locate utilities in public easements. This service requires 2 business days to clear utilities from the time the request is made. The borings are planned within the roadway right-of-way, however if private utilities are present they must be marked by the City prior to commencement of field exploration. Terracon will not be responsible for damage to private utilities that are not made aware to us. If a private locate is necessary, we are available to provide you with the names of companies that provide this service. Terracon is not responsible for damage to any utilities (public or private) incorrectly marked or not marked by others. Any other restrictions or special requirements regarding this site or exploration should also be provided to us before we commence the fieldwork.

## **Project Delivery**

Your project will be delivered using our **GeoReport** system. Upon initiation, we will provide you and your design team the necessary link to access the website. Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. A typical delivery process includes three basic stages:

- Stage 1: Project Planning
- Stage 2: Site Characterization
- Stage 3: Project Delivery

When services are complete, we will upload a printable version of our report. Previous submittals, collaboration, and our report will be maintained in our system. This will allow future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

Our data report will provide the following:

- Boring logs with field and laboratory data
- Summary of standard Proctor, CBR, and sieve analyses with hydrometer tests
- Subsurface water levels observed during and at the completion of drilling

**Proposal for Subsurface Exploratory Borings & Laboratory Testing Services**

Grandview Avenue Improvements ■ Muscatine, Iowa

February 13, 2018 ■ Terracon Proposal No. P07185025



- Boring location plan to be provided by HDR
- Subsurface exploration procedures

No engineering evaluations/analyses were requested and are not included in our scope of services.

## EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

### Compensation

Based upon our understanding of the of the scopes of services outlined in Exhibit B, our lump sum fee for the requested scope of services, excluding traffic control, is \$19,250. Traffic control will be invoiced at Cost + 15%; a contingency of \$6,000 could be used for budgeting purposes. Our fee is based on the contingency borings being performed during the same mobilization as the 34 required borings. Our fee does not include the cost of services performed after submittal of our report, such as addendum reports due to project changes or information that was not provided/available at the time our report was prepared. Upon request, we are available to provide these services.

### Project Schedule

We developed the following schedule to complete the scope of services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, location of utilities, or lack of permission to access the boring locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport Stage	Posting Date from Notice to Proceed <sup>1,2</sup>
Project Planning	5 business days
Fieldwork/Laboratory Testing	15 to 25 business days
Data Report	30 business days

**1.** Upon receipt of your notice to proceed we will activate the schedule component of our **GeoReport** website with specific, anticipated calendar dates for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.

**2.** We will maintain a current calendar of activities within our **GeoReport** website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.