

CITY OF WILLIAMSPORT, PA RESOLUTION

RESOLUTION # 9357

DATE 9-15-22

TITLE

RESOLUTION AWARDING PROFESSIONAL SERVICES FOR LEVEE TESTING TO GEO-
TECHNOLOGY ASSOCIATES INC

BE IT HEREBY RESOLVED, by the City Council of the City of Williamsport that the Williamsport Levee Relief well testing services be awarded to **Geo-Technology Associates Inc (GTA)** for \$158,000. Anticipated funding source is ARPA.

BE IT FURTHER RESOLVED, that the attached agreement is approved and the appropriate city officials are authorized and directed to execute the agreement, and that a copy of this executed agreement then be forwarded to **GTA**, via email.

Approved

James M. Frenel
City Clerk

A. By
President

Wenk Haughter
Mayor

Signature

9/15/22
Date

James M. Frank
City Clerk

Signature

Date

Margaret Woodman
City Controller

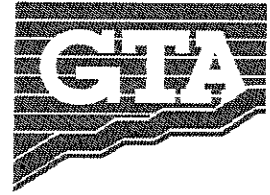
Signature

Date

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

A Practicing Geoprofessional Business Association Member Firm



July 15, 2022

City of Williamsport
1550 West 3rd Street
Williamsport, PA 17701

Attn: Mr. Jon F. Sander, P.E.

Re: Proposal for Seepage Relief Well Testing
Williamsport Levee
Lycoming County, Pennsylvania

Dear Mr. Sander:

In response to the City of Williamsport's Request for Proposals for Seepage Relief Well Testing (RFP), Geo-Technology Associates, Inc. (GTA) is pleased to submit this Proposal to the City of Williamsport (City; Client) for sediment evacuation, hydraulic testing and down-hole video services at the Williamsport Levee, located in Williamsport, Pennsylvania. GTA understands that sediment evacuation is to be performed within up to 26 wells, and downhole video and short-term hydraulic testing is to be performed within up to 102 relief wells which range in depth from about 12 to 60 feet below the existing ground surface (ft bgs), at the approximate locations indicated on the "*Susquehanna River Flood Control Project for Williamsport; Williamsport Pennsylvania Sections I and II, General Plan*", prepared by the U.S. Army Corps of Engineers (USACE). Information requested in the RFP is addressed as follows:

Method for Providing Requested Services (Scope and Methods, Understanding of Conditions and Availability)

The well evacuation work to remove sediment from the bottoms of the 26-identified wells is proposed to be performed first, followed by short-term hydraulic testing and down-hole video recording of the well casings and screens. As testing progresses on wells that are not initially targeted for sediment removal, well soundings will be performed prior to test initiation at each well for comparison with reported well depths. Those wells that appear to have excessive sediment, based on USACE's previous evaluation approach, will be flagged for discussion with the City prior to sediment removal or testing. It is assumed that down-hole video work will be performed as testing progresses, i.e., as the test crew moves forward in well areas, video work will also be performed in those areas to attempt to increase efficiency.

It is anticipated that the components of this proposed work will be performed in a similar manner and with similar equipment/methods as was employed in our previous work at

3445-A Box Hill Corporate Center Drive, Abingdon, MD 21009 (410) 515-9446

✦ Abingdon, MD ✦ Baltimore, MD ✦ Laurel, MD ✦ Frederick, MD ✦ Waldorf, MD ✦ New Castle, DE ✦ Georgetown, DE
✦ Somerset, NJ ✦ NYC Metro ✦ Pittsburgh Metro ✦ Quakertown, PA ✦ Scranton/Wilkes-Barre, PA ✦ York, PA
✦ Northeastern, OH ✦ Sterling, VA ✦ Nashville, TN ✦ Charlotte, NC ✦ Raleigh, NC ✦ Orlando, FL

Visit us on the web at www.gtaeng.com

City of Williamsport

Re: ***Proposal for Seepage Relief Well Testing***

July 15, 2022

Page 2

Williamsport and South Williamsport. Please refer to the levee well testing project descriptions attached hereto for Williamsport and South Williamsport for more detailed information on equipment, method and approach, and also please see our *Scope of Services* section within this Proposal.

GTA understands that site conditions are such that well locations are readily accessible to equipment, personnel and a pick-up truck used to transport equipment. No site modifications for access provision are included in this Proposal. Our understanding of regulations is that no government agency permits are required for performance of the work. GTA will meet with the City to discuss appropriate ingress and egress to/from well areas and to schedule work such that impacts to other City activities may be minimized.

GTA has personnel and equipment available for performance of the work, and will devote crews and equipment to the work. It is anticipated that the work would proceed in a similar manner as GTA's previous testing for the City where crews performed work for consecutive weeks with periodic interludes of about a week. GTA will work with the City to meet scheduling goals.

Please note that severe weather conditions can delay work or result in conditions that substantially slow work progress – this includes winter weather. Should this work be substantially affected by such conditions an adjustment to fees may be necessary. Performance of Tasks 1 through 3 at individual locations is assumed for performance during consecutive business days, and is predicated on the ability to access wells and to lower instrumentation/equipment into wells to sufficient depths to perform tasks; e.g., it is assumed that there are no obstructions in wells.

Offeror's Qualifications, Experience and Proposed Technical Staff (Experience and Key Personnel)

GTA has extensive experience with levees, dams and impoundments, including rehabilitation of existing problematic dams and levees and associated relief wells. Our experience includes levee relief well testing and rehabilitation, evaluation of earthen dams as well as masonry and concrete retaining structures, and addressing problems including seepage, slope sloughing, and settlement. Over the past 13 years GTA has successfully performed multiple projects related to levee relief wells with services performed in accordance with USACE requirements including relief well hydraulic testing, sediment removal from wells, well rehabilitation, turbidity and sand content evaluation, down-hole video work and specific capacity evaluation. Our previous levee relief well services have been rendered for projects including the Wyoming Valley Flood Risk Management Project in Luzerne County, Pennsylvania and the Williamsport and South Williamsport levee relief well systems in Lycoming County Pennsylvania. Please refer to the attached *Sample Relevant Experience* project listing for more information on our past experience with levee relief well projects.

Our key personnel to be assigned to this proposed work include the following personnel:

Paul S. Scott, P.G. – Vice President, Senior Hydrogeologist – 24 years with GTA
David S. Krahl – Associate, Drilling Manager – 22 years with GTA
Greg McKee – Project Hydrogeological Professional – 9 years with GTA

Resumes of key personnel are provided immediately following the sample relevant project experience.

Offeror's Stability

Our aforementioned three key personnel have a combined term of over 50 years with GTA and we have been working as a team on levee relief well projects for nearly a decade.

RFP Clarifications

Based on the reviewed clarifications provided by the City in reference to the RFP, GTA understands the following:

1. A GTA P.G. or P.E. will sign and seal the proposed report;
2. GTA will provide a COI to the City if selected to perform the work;
3. GTA is providing herein a per well estimate for additional sediment removal if needed beyond the specified 26 wells;
4. Constant rate tests are not applicable; testing will include stepped pumping rates; and
5. This Proposal includes down-hole video work for the 102 levee relief wells.

GTA proposes to perform the services detailed in the *Scope of Services* presented herein.

SCOPE OF SERVICES

This Proposal is limited exclusively to the work described in this Scope of Services section, and items not expressly described shall be considered excluded from the work. Performance of Tasks 1 through 3 at individual locations is predicated on the ability to lower instrumentation/equipment into wells to sufficient depths to perform tasks; e.g., it is assumed that there are no obstructions in wells. GTA proposes to perform the work which is described as follows:

Task 1 – Sediment Evacuation

- It is assumed that the Client will select and identify the 26 wells for sediment removal prior to mobilization. GTA will review available existing well construction information for each of the 26 wells and will sound the depths of each of the wells with a weighted tape for evaluation of the depth of sediment in each well.

- GTA will mobilize equipment and personnel to the site for performance of evacuation of sediments from the bottom of each well. It is assumed that well locations are accessible to equipment, personnel and a pick-up truck used to transport equipment. GTA will remove sediment as feasible by forced air via an air compressor and associated tubing/appurtenances lowered into the well. GTA will perform sediment removal operations via air-lifting at each well location for up to 1.5 hours per location on average. It is possible that it will not be feasible to remove all or some portion of sediment in some wells, e.g., in cases where there is insufficient water column in the well, there is excessive sediment intrusion into the well due to broken casing or improperly sized screen openings, etc.
- It is assumed that water and sediment removed from the wells can be discharged directly to the ground surface and remain at or adjacent to the wellhead, that the wells are truck-accessible without clearing or improvements and that GTA can enter the site at the most convenient location.

Task 2 – Down-hole Video

- GTA will perform video documentation of the condition of each of the 102 wells. A submersible down-hole video camera will be lowered into each well for evaluation of casing and screen conditions.
- Video information will be recorded for transmittal to the Client as part of the data report. It is assumed that well locations are predominantly truck-accessible such that equipment can be brought by truck to the immediate vicinity of each well.

Task 3 – Hydraulic Testing

- GTA will mobilize equipment and personnel to perform short-term hydraulic tests within up to 102 wells. It is assumed that well locations are accessible to equipment, personnel and a pick-up truck used to transport equipment. Step-drawdown testing is proposed, with pumpage performed sequentially at successively increasing pumping rates ranging from approximately 5 to 15 gallons per minute (gpm). It is anticipated that each pumping step will be 20 to 40 minutes in duration, and that up to three steps will be performed for each tested well. No recovery period is proposed between pumping steps.
- Prior to initiation of pumping GTA will measure the static water level in the well. A pressure/transducer/data logging device will be used to record groundwater levels in the well throughout the testing period and a volumetrically graduated container and stop watch and/or flow meter will be used for discharge monitoring. Up to 100 feet of discharge line will be used to convey pumped groundwater away from the wells.
- It is assumed that sufficient water will be present in the wells to perform step-drawdown testing. If there appears to be insufficient water for performance of a pumping test, e.g.,

less than about two or three feet of water in the well, alternative hydraulic testing consisting of slug testing will be performed. Wells that are dry or nearly dry, such that slug-induced displacement cannot be effectively measured will not be hydraulically tested. It is assumed that well locations are predominantly truck-accessible, such that equipment can be brought by truck to the immediate vicinity of each well. For wells that are pumped to a near-dry condition at rates of up to 5 gpm recovery data will be collected for a period of up to 2 hours. It is assumed that at least 3 tests can be performed per business day on average. It is assumed that well locations are truck accessible, such that equipment can be brought by truck to the immediate vicinity of each well.

- GTA will use a Rossum Sand Tester or other similar device/method, e.g., Imhoff cone, to provide an estimate of sand content of discharge water for each well.
- For each step-tested well, GTA will calculate specific capacity based on the time drawdown data and pumping rate data obtained from step-drawdown testing. Time-drawdown graphs for each hydraulic test will also be constructed and provided in the data report.

Task 4 – Reporting

- GTA will prepare a data report that summarizes our field observations and the results of the sediment removal, down-hole video work, and hydraulic testing. The report will include a brief description of field operations for the tasks performed, time drawdown graphs for hydraulic testing, a brief description of well conditions based on down-hole video data and estimates of specific capacity for each well. Video recordings for each of the wells will also be provided in electronic format.
- During performance of sediment removal and hydraulic testing operations, GTA will provide periodic updates to the Client and, at Client's direction the USACE, via e-mail regarding work progress, to consist of a brief statement of wells where operations have been performed, brief notes as may appear appropriate regarding unusual or other conditions that may be encountered, and applicable notes regarding upcoming segments of work. The aforementioned periodic e-mail updates are included in this Proposal, along with up to 2 meetings with the Client. Additional services, meetings, interim data reports, response to comments, etc. would constitute additional work for additional fees, to be billed on an hourly basis.

FEES AND PAYMENTS

GTA's fee is for the Work listed in the *Scope of Services* above, at the location described above. The fees listed in this *Fees and Payments* section do not cover any Additional Work (defined below), or any other services, which are not specifically described as part of the work listed in the *Scope of Services* above. Fees for the proposed work will be billed on a fixed fee basis. Based on currently available information, the fixed-fee cost of the work listed in the *Scope*

of Services will be **\$158,000.00**, plus applicable additional/contingency and/or hourly fees. Changed conditions or additional requirements may result in an adjustment to fees.

COST SUMMARY		
Task 1	Sediment Evacuation	\$16,000.00
Task 2	Down-hole Video	\$12,000.00*
Task 3	Hydraulic Testing	\$115,000.00
Task 4	Reporting	\$15,000.00
Total Cost for Tasks 1 through 5:		\$158,000.00

*It is assumed that Task 2 work can be performed during the time of hydraulic testing work associated with Task 3.

Additional fees for additional and contingency services, as applicable:

Meetings/response to commentsHourly
 Site Restoration (2-man crew with hand tools).....\$1,350/day
 Hand Bailing Wells for Sediment Removal (beyond 2-hours)Hourly
 Sediment Removal at Additional Wells
 (for up to 1-hour avg. and provided removal can occur immediately
 following initial 26 wells and on consecutive business days).....\$550/well

Changed conditions or additional requirements may result in an adjustment to the estimated fees. ***Fees for the proposed Scope of Services are valid for 60 days from the date of this Proposal.***

The fees listed in this *Project Fees* section do not cover any *Additional Services* (defined below), or any other services, which are not specifically described as part of the work listed in the *Scope of Services* herein. Changed conditions or additional requirements may result in an adjustment to the above fees.

ADDITIONAL WORK

Experience indicates that certain additional items of work may be required or necessary which GTA cannot presently determine or estimate. For this reason, the fee for these items is not included in the provisions listed in “Fees and Payments” for the performance of the work. Further, the performance of these items is not included in the work unless the item is expressly described as the work in the preceding *Scope of Services* section. These additional items of work (“Additional Work”) are caused by many factors, usually at the discretion of the Client. They may also be caused by reviewing agency variance/deviation from present policies and standards. Additional Work may sometimes be referred to as extras, change orders, or add-ons, but for

purposes of this Proposal, all such descriptions are intended to be encompassed within the term Additional Work.

For Client's reference, the following are some of the services that may be required as additional work to complete the work, but that are expressly excluded from the *Scope of Services* listed above. In view of their exclusion from this Proposal, GTA is not and shall not be held responsible for their performance as work within the *Scope of Services*.

1. Response to comments/report revisions;
2. Additional work required by a reviewing agency;
3. Work revisions on any *Scope of Services* items that are required as a result of a change requested by the Client after previous approval by them or any approving agencies;
4. Certifications of approvals not specifically called for in the *Scope of Services*;
5. Changes in policies or regulations during the progress of the work;
6. Field or office survey services;
7. Attendance at meetings beyond the two specified in the *Scope of Services*;
8. Correction work due to inaccurate information supplied by the Client or its agents;
9. Delay time, if unable to access test locations for reasons beyond the control of GTA;
10. Site restoration;
11. Sediment and erosion control;
12. Obtaining permits or other approvals for performance of the work in the *Scope of Services*; and
13. Contracted heavy machinery or any site modifications to provide access to monitoring locations.

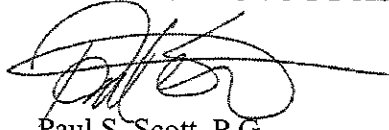
Fees and payments for additional work shall be in addition to any fees and payments for the work described in the *Scope of Services* section. GTA's fee for additional work will be billed in accordance with subsequent work orders.

GENERAL PROVISIONS

The attached General Provisions dated January, 2017 are incorporated herein by reference and made part of this Agreement. If this Proposal and General Provisions are satisfactory and acceptable and fully set forth the terms of our Agreement, please sign the Acceptance and return one original to our office. Your verbal authorization for GTA to proceed acknowledges your acceptance of the terms of this Agreement, including the General Provisions attached hereto.

GTA welcomes the opportunity to be of assistance to you, and we look forward to working with you on this project. If there are any questions, please contact our office at (410) 515-9446.

Sincerely,
GEO-TECHNOLOGY ASSOCIATES, INC.



Paul S. Scott, P.G.
Vice President

PSS/gmm

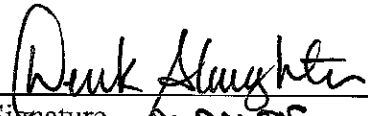
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Attachments:

GTA 00-22 Fee Schedule – 1 page
General Provisions, dated January 2017 – 2 pages

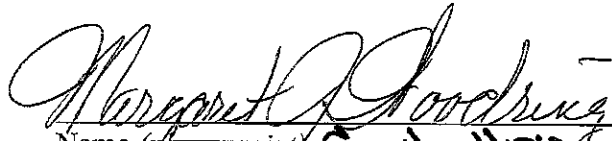
ACCEPTANCE:

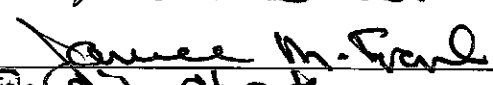
The undersigned represents that he/she accepts this Proposal and is authorized to sign and bind City of Williamsport.



Signature *mayor*

Date *9/15/22*



Name (~~please print~~) *Controller*


Title *City Clerk*

INVOICING: by Mail or Email?

Attention: _____

Email: _____

REPORTS CC'd:

Attention: _____

Email: _____

**GEO-TECHNOLOGY ASSOCIATES, INC.
FEE SCHEDULE**

Technical Fees		Rate
Admin Staff		\$50.00 /Hour
Technician		\$68.00 /Hour
Structural Technician, MARTCP/DOT Technician		\$90.00 /Hour
Senior Technician		\$100.00 /Hour
Field Professional/Scientist, Assistant Project Manager		\$135.00 /Hour
Staff Engineer, Staff Professional/Scientist, Project Manager		\$150.00 /Hour
Project Engineer, Project Professional/Scientist		\$190.00 /Hour
Senior Engineer, Senior Professional/Scientist, Senior Project Manager		\$240.00 /Hour
Associate		\$270.00 /Hour
Principal/Vice President		\$325.00 /Hour
Travel Mileage		\$0.68 /Mile
Nuclear Gauge Equipment Fee (Soils)		\$55.00 /Day
Nuclear Gauge Equipment Fee (Asphalt)		\$90.00 /Day
Admin Fee for Processing/Distributing Daily Reports for Construction Observation		\$230.00 /Month
Photo ionization detector (PID) / Multigas Meter Equipment Fee		\$240.00 /Day
Core Drill Rig with Bit and Generator Equipment Fee		\$525.00 /Day
Floor Flatness Equipment Fee		\$550.00 /Day
Trimble GPS Equipment Fee		\$469.00 /Day
Windsor Probe Strength Test Rental (set of 3 Shots)		\$125.00 / Set
Laboratory Fees		Unit Price
Soil		
Moisture Content	D-2216	\$11.00 /Each
Atterberg Limits	D-4318	\$165.00 /Each
Wash #200	D-1140	\$80.00 /Each
Grain Size Analysis	D-6913	\$130.00 /Each
Grain Size with Hydrometer	D-422	\$200.00 /Each
Proctor - Standard	D-698	\$190.00 /Each
Proctor - Modified	D-1557	\$225.00 /Each
California Bearing Ratio (CBR)	D-1883	\$625.00 /Each
One Dimensional Consolidation	D-2435	\$900.00 /Each
Direct Shear Test - Granular Soils (3 points)	D-3080	\$650.00 /Each
Direct Shear Test - Fine Grained Soils (per point) (Peak or Fully Softened/Residual)	USACOE EM 1110-2, Modified	\$600.00 /Each
Unconfined Compression Test (Soil)	D-2166	\$200.00 /Each
Triaxial Compression UU (1 point)	D-2850	\$255.00 /Each
Triaxial Compression CU w/PP (3 points)	D-4767	\$1,275.00 /Each
Unit Weight	C-29	\$90.00 /Each
Specific Gravity of Soils	D-854	\$255.00 /Each
Permeability of Granular Soils (constant head)	D-2434	\$625.00 /Each
Permeability of Soils (flexible wall)	D-5084	\$675.00 /Each
Loss on Ignition (Organic Content)	D-2974	\$120.00 /Each
PH	D4972 or G-51	\$70.00 /Each
Resistivity	G-57	\$170.00 /Each
Corrosion Series	various	\$330.00 /Each
Topsoil Testing (basic nutrients, texture, and soluble salts)	various	\$175.00 /Each
Soil Admixture Design including Compression Testing	various	\$1,375.00 /Each
Compression Testing of Soil Cement Specimens	D-1633	\$42.00 /Each
Soil Admixture Design - Preparation of Specimen	D-1632	\$145.00 /Each
Soil Cement Proctor w/ 7-day Breaks	D-558	\$700.00 /Each
Freeze/Thaw Testing of Soil Cement	D-560	\$1,300.00 /Each
Wet/Dry Testing of Soil Cement	D-559	\$1,300.00 /Each
GSA, Atterberg, Proctor	various	\$485.00 /Each
LA Abrasion	C-535	\$450.00 /Each
Sodium Sulfate Soundness	C-88	\$325.00 /Each
Organic Impurities	C-40	\$165.00 /Each
Specific Gravity Asphalt Cores	D2726 or D-1188	\$58.00 /Each
Rock Unconfined Compression Test	D-7012	\$175.00 /Each
Concrete		
Cylinders 4 x 8	C-39	\$17.00 /Each
Cylinders 6 x 12	C-39	\$22.00 /Each
Mortar/Grout Cube 2 x 2	C-780	\$26.00 /Each
Concrete Cylinders Prep	-	\$60.00 /Hour
Grout Prism	C-1019	\$75.00 /Each
Concrete Flexural Beam	C-293	\$110.00 /Each

GEO-TECHNOLOGY ASSOCIATES, INC.
Geotechnical and Environmental Consultants
GENERAL PROVISIONS

1. SCOPE OF SERVICES

Geo-Technology Associates, Inc. (GTA) shall perform the services defined in the Proposal, Work Authorization Form, Extra Work Authorization Form, or other document setting forth the agreement between the parties (the "Agreement") attached hereto and shall invoice Client at those rates shown in the Agreement. Any estimate of cost in the Agreement shall not be considered as a fixed price, but only an estimate unless otherwise specifically stated in the Agreement. Any service not included in the Agreement is an Additional Service. GTA will provide Additional Services under this Agreement as requested by Client and will invoice Client for those Additional Services at GTA's then prevailing fee schedule. The technical and pricing information contained in any document submitted by GTA to Client is confidential and proprietary, and shall not be released or otherwise made available to any third party without GTA's express written consent.

2. STANDARD OF CARE

GTA will strive to perform services under this Agreement in accordance with generally accepted principles of engineering practices and in a manner consistent with that level of care and skill ordinarily exercised by members of their profession, practicing under similar circumstances in the same or similar locality, in the same period of time. This warranty is in lieu of all other warranties, either express or implied.

3. OWNERSHIP OF DOCUMENTS

The documents prepared by GTA for this Project are Instruments of Service for use solely with respect to this Project and GTA is deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including copyright. Client will be permitted to retain copies, including reproducible copies, of the documents solely for Client's information, reference and use in connection with the Project as long as Client is not in default under this Agreement. Any termination of this Agreement prior to completion of the Project shall terminate this license. Use and reproduction of any Instrument of Service without the express written consent of GTA is unauthorized and such use is at the sole risk of the user, and Client agrees to indemnify, defend, and hold GTA harmless from all claims, damages and expenses, including attorney's fees, arising out of such unauthorized use. Client agrees that all reports and other work furnished to Client or its agents, which are not paid for, will be returned upon demand and will not be used by Client for any purpose whatsoever.

4. PAYMENTS

Invoices will be submitted by GTA on a monthly basis as work proceeds. Invoices will be due and payable in full upon receipt of an invoice by Client without retainage, and will not be contingent upon receipt of funds from third parties. In the event that Client objects to all or any portion of any invoice, Client shall notify GTA of the reasons for the objection within fifteen (15) days from date of the invoice, and pay that portion of the invoice not in dispute. Payments made by Client shall constitute acceptance of GTA's Proposal and General Provisions. If fees are not paid in full within thirty (30) days of the date of the invoice, GTA may pursue all appropriate remedies, including but not limited to, suspend or terminate services under this Agreement, withdrawing certifications, stopping work, and retaining all documents. In the event of such suspension or termination of services, GTA shall have no liability to Client for delay or damages caused by such suspension or termination. If at any time, an invoice remains unpaid for a period in excess of thirty (30) days, a service charge of one and one-half percent (1.5%) per month from the date of the invoice will be charged. Claims and/or causes of action against Client arising out of or relating to this Agreement shall be brought by GTA within three (3) years of the date of the last invoice issued by GTA for services rendered pursuant to this Agreement or termination of this Agreement whichever is sooner. Application of the percentage rate indicated above as a consequence of Client's late payments does not constitute any willingness on GTA's part to finance Client's operation, and no such willingness should be inferred. In the event GTA employs the services of any attorney or agency to collect any sums due hereunder or to enforce any terms contained herein Client agrees to pay all litigation costs, including but not limited to reasonable attorney's fees and court costs incurred by GTA, as well as the time spent by GTA personnel based on their current hourly billing rates.

5. CLIENT RESPONSIBILITIES

Client, for its own benefit, may, from time to time, on its own or retain others to perform certain tests, inspections and analyses or other information and materials for use by GTA ("client data"). GTA may rely and is expected to rely on such client data without the need for independent evaluation and/or verification. Client agrees to indemnify, defend, and hold GTA harmless from any and all losses, damages and claims of any nature which may in any way arise out of or in connection with the use by GTA of the client data and other information issued and/or prepared by Client or others and furnished to GTA in connection with this project. In the event Client or Client's personnel, contractors, or subcontractors become aware that a suspected error or omission by GTA has been discovered, or that a change in the conditions reported by GTA is suspected, GTA shall receive prompt written notice of such suspected error, omission, or change in order that GTA may have the opportunity to take prompt, effective measures which in GTA's opinion will minimize the consequences of a defect in service. Failure to provide prompt notice or to provide GTA the opportunity to remedy the situation shall relieve GTA of any further liability.

6. HIDDEN CONDITIONS

The Instruments of Service are based on observable conditions. A condition is hidden if it is concealed by existing finishes or cannot be investigated by reasonable visual observation. In the event GTA, in the performance of the services, uncovers a hidden condition, GTA shall not be responsible for costs associated with repairing, restoring, removing, redesigning or otherwise correcting said condition. GTA shall have no responsibility for hidden conditions or any subsequent damage to persons or property related to any hidden conditions.

7. HAZARDOUS SUBSTANCES

GTA shall have no responsibility, unless contracted to do so, for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous substances in any form at the Project site, including but not limited to asbestos, asbestos products, petroleum, petroleum derivatives, polychlorinated biphenyl (PCB) or other hazardous substances, as defined by any applicable environmental law. Client agrees to advise GTA prior to beginning work of any hazardous substances on or near the site. In the event that test samples obtained during GTA's work contain substances hazardous to health, safety or the environment, these samples remain the property of Client. Likewise, any equipment contaminated during GTA's services which cannot be reasonably decontaminated shall become the property and responsibility of Client. Such samples and/or equipment will be delivered to Client. Client agrees to pay transportation costs for samples and equipment and the fair market value of contaminated equipment.

8. CONSTRUCTION OBSERVATIONS AND TESTING SERVICES

GTA will provide personnel to observe and report on specific aspects or phases of construction in accordance with the agreed Scope of Services. Unless GTA's Scope of Services provides otherwise, GTA does not provide continuous observation of the work performed by the contractor or subcontractors. GTA's visits to the construction site shall be for the purpose of becoming generally familiar with the progress of the construction work and performing observations and testing within GTA's scope. Should Client not retain GTA to observe construction, or should Client unduly restrict GTA's assignment to observe construction, Client waives any claim against GTA, and agrees to indemnify, defend, and hold GTA harmless from any claim, liability, or loss arising from problems during construction that allegedly result from findings, conclusions, recommendations, plans, or specifications developed by GTA. GTA's services do not include supervision or direction of the actual work of the contractor, his employees, agents or subcontractors or job site safety. Client agrees to notify the contractor accordingly. The contractor shall also be informed by Client that neither the presence of GTA's field representative nor the observation and testing by GTA shall excuse the contractor from defects in its work or from potentially unsafe working conditions.

9. RIGHT OF ENTRY

Client will provide rights of entry and access for GTA and necessary permissions in order for GTA to perform its services. While GTA will take reasonable precautions to minimize damage to the property, it is understood that in the normal course of work, some damage may occur to surface features, the correction of which is not part of GTA's Scope of Services.

10. DISCLOSURE

If during the course of this engagement, GTA develops data or information that requires disclosure to an administrative agency or other authority with proper jurisdiction, Client agrees to such disclosure and agrees to defend, indemnify, and hold GTA harmless from any claim or liability arising from such disclosure.

11. FAILURE TO FOLLOW RECOMMENDATIONS

Client recognizes and assumes the inherent risks connected with subsurface and earthwork construction, and agrees that it would be unfair to hold GTA liable for problems that may occur if GTA's recommendations are not followed. Accordingly, Client waives any claims against GTA, and agrees to defend, indemnify, and hold GTA harmless from any claim or liability for injury or loss that results from Client's failure to strictly implement GTA's recommendations. Client also agrees to compensate GTA for any time spent and expenses incurred by GTA, including attorney's fees, in defense of any such claim, with such compensation to be based upon GTA's then prevailing fee schedule and expense reimbursement policy.

12. SAMPLING AND TEST LOCATION

Unless otherwise stated, the fees in the Agreement do not include costs associated with surveying of the site for the accurate horizontal and vertical locations of tests. Field tests or exploration locations described in GTA's report or shown on sketches are based upon information furnished by others or estimates made in the field by GTA's representatives. Such dimensions, depths, or elevations should be considered as approximations unless otherwise stated. GTA will not provide or check field survey work. If Client specifies the test location, GTA reserves the right to deviate a reasonable distance from the location specified. GTA will retain all soil and rock samples for sixty (60) days after GTA's report is issued. Further storage or transfer of samples can be made at Client's expense, upon written request.

13. SUBSURFACE EXPLORATION

If subsurface exploration is required to complete the Scope of Services, then any such work by GTA is subject to the following qualifications.

- a. GTA will take reasonable precautions to avoid damages to subterranean structures or utilities in the prosecution of the work. The Client agrees to advise GTA of known or suspected underground features which could affect the services to be provided. The Client agrees to hold GTA harmless for any damages to subterranean utility lines and for structures which are not called to GTA's attention.
- b. If the Client specifies the subsurface exploration locations, GTA reserves the right to deviate a reasonable distance from the location specified. GTA reserves the right to terminate this contract if site conditions prevent subsurface exploration at or near the designated locations, and these conditions were not revealed to GTA prior to submitting this Agreement. If deeper or additional subsurface explorations are necessary to evaluate unusual or anomalous conditions, the additional work, will be charged in accordance with the fee schedule.

14. REJECTION OF WORK

GTA may recommend to Client rejection of contractor's work which, in GTA's professional opinion, does not conform to design, specifications, or GTA's recommendations. Client agrees to indemnify, defend and hold GTA harmless from any and all losses, damages and claims of any nature, which may in any way arise out of GTA's rendering of good faith advice to Client on this topic.

15. DELAYS

In the event that GTA's field or technical work is interrupted due to causes beyond GTA's control, GTA shall be compensated for the labor, equipment, and other costs GTA incurs in order to maintain its workforce for Client's benefit during the interruption, or at Client's option, the various costs GTA incurs for demobilization and subsequent remobilization. Compensation to GTA shall be based upon GTA's then prevailing fee schedule and expense reimbursement policy. Client shall not hold GTA responsible for damages or delays in performance caused by acts of God or other circumstances beyond the control of GTA.

16. DISPUTE RESOLUTION

In addition to and as a condition precedent to litigation, the parties shall endeavor to settle disputes, other than payment disputes, by non-binding mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association then in effect unless the parties mutually agree otherwise. In no event shall the demand for mediation be made after the date when such claim, dispute or other matter in question would be barred by the applicable statute of limitations. If mediation fails to resolve the claims or disputes, then all claims, disputes or other matters in question arising out of this Agreement shall be determined by a state or federal court located in ~~Maryland~~. Both parties consent to personal jurisdiction and venue in the courts referenced above.

Pennsylvania

17. CERTIFICATE OF MERIT

Client shall make no claim, either directly or in a third party claim, against GTA unless Client has first provided GTA with a written certification executed by an independent professional currently practicing in the discipline of the alleged defect or error and licensed in the state where the Project is located. This certification shall: a) contain the name and license number of the certifier; b) specify each and every act or omission that the certifier contends is a violation of the standard of care in this Agreement; and c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation.

Pennsylvania

18. GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the state of ~~Maryland~~. Should any provision of this Agreement be or become legally invalid, the validity of the remainder of this Agreement shall not be affected.

19. LIMITATION OF LIABILITY

GTA's liability for damages arising out of any theory of liability, including torts, such as negligence, strict or statutory liability, and breach of contract, shall be limited to an amount not to exceed the lesser of GTA's fee or \$50,000. To the extent damages are covered by property insurance, Client and GTA waive all rights against each other, notwithstanding that such loss, damage or liability may arise out of the act or omission of GTA, and the nature of the conduct that causes the damage shall not vitiate this waiver. GTA will not be liable for consequential damages, including, without limitation, loss of use or loss of profits, regardless of whether such damages are caused by breach of contract, willful misconduct, negligent act or omission, or other wrongful act by GTA. No director, officer, employee or agent of GTA shall have any individual liability to Client. Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, any other person. Any and all claims and/or causes of action against GTA arising out of or relating to this Agreement shall be brought by Client within two (2) years of the date of the last invoice issued for services rendered pursuant to this Agreement or termination of this Agreement whichever is sooner.

20. COVENANT NOT TO SUE.

Client shall assure that the following covenant not to sue is contained in all other contractor agreements, and shall assure its enforcement: "Contractor, or any successor, assignee or subrogee of Contractor, agrees not to bring any civil suit, action or other proceeding in law, equity or arbitration against GTA, or the officers, employees, agents or consultants, of GTA, for the enforcement of any action which Contractor may have arising out of or in any manner connected with the Project. GTA, its officers, employees, agents, and consultants are intended third-party beneficiaries of this covenant not to sue, who are entitled to enforce this covenant in law or equity."

21. BETTERMENT

If due to GTA's breach of the standard of care, any required item or component of the Project is omitted from GTA's Instruments of Service, GTA shall not be responsible for paying the cost to add such item or component to the extent that such item or component would have been otherwise necessary to the Project or otherwise adds value or betterment to the Project. In no event will GTA be responsible for any cost or expense that provides betterment, upgrade or enhancement of the Project.

22. ASSIGNMENT

Client shall not assign or transfer its interest or claim arising under or related to this Agreement without the written consent of GTA.

23. SUSPENSION OR TERMINATION FOR CLIENT'S BREACH

GTA may suspend or terminate services without breach of contract immediately upon giving Client written notice that Client is in default. In the event services are suspended or terminated, GTA has no obligation to deliver documents and any consequences (including delay) resulting from such suspension or termination are the sole responsibility of Client. GTA shall be compensated for all services performed up to the date of termination together with all reimbursable expenses then due and any termination expenses. Client has the obligation to return all documents if Client is in default under this Agreement. Client shall be considered in default in the event GTA does not receive payment when due, Client unreasonably delays in responding to GTA, Client fails to reasonably act in good faith, or Client otherwise breaches this Agreement.

24. ENTIRE AGREEMENT

These General Provisions along with the Agreement represent the entire and integrated agreement between the parties and supersede all prior negotiations, representations or agreements, either written or oral and may be amended only by written instrument signed by all of the parties.

25. PREVAILING WAGE PROJECTS

This Agreement is based on GTA's services for this Project being considered professional services and not subject to the provisions of any prevailing wage act. If it is later determined that any prevailing wage act applies to GTA's services on this Project, this Agreement will be amended to reflect GTA's hourly billing rate which will be based on applicable Prevailing Wages, plus overhead and profit as determined by GTA. The change in hourly billing rates will be retroactive to the start of work on this project. Client agrees to protect and reimburse GTA for any and all costs incurred arising out of or resulting from the requirements of the Prevailing Wage Act being applied to our services on this Project. Client further agrees to immediately notify GTA if the Client learns that the Prevailing Wage Act may apply to GTA's services on this Project.