



# ECS Mid-Atlantic, LLC

Proposal to Provide Geotechnical Engineering Services

Warwick Stadium Campus Improvements

301 W Orange Street

Warwick Township & Lititz Borough, Lancaster County, Pennsylvania

March 2, 2020



March 2, 2020

Mr. Tyler Hill, PE  
ELA Group, Inc.  
743 South Broad Street  
Lititz, PA 17543

Reference: Proposal for Geotechnical Engineering Services  
Warwick Stadium Campus Improvements  
Warwick Township & Lititz Borough, Lancaster County, Pennsylvania

Dear Mr. Hill,

As requested, ECS Mid- Atlantic, LLC (ECS) is pleased to present the following proposal to geotechnical engineering services for the Warwick Stadium Campus Improvements in Lititz, Pennsylvania.

In preparing this proposal, we have had the opportunity to review the information provided by the client along with the available geologic information. Our proposal is based upon the plans provided and our experience with similar projects within this geographic area.

#### **PROJECT DESCRIPTION**

The property consists of the existing Warwick High School campus located at 301 West Orange Street in Warwick Township and Lititz Borough, Lancaster County, Pennsylvania. Based on the site plan and RFP dated February 24, 2020, the project will consist of constructing a new synthetic turf field, parking areas and stormwater management facilities. Based on the NPDES boundary identified on the provided plans, the overall site boundary encompasses approximately 100 acres.

In order to evaluate the property, our scope of work will include review of published geologic data, site reconnaissance, subsurface exploration via test pits, laboratory testing program, geotechnical engineering analysis and preparation a report. Specific items included within each of these tasks are presented as follows:

#### **SCOPE OF SERVICES**

##### **Task I – Carbonate Assessment**

ECS will complete a geologic evaluation of the property per the requirements stated within the 2014 Warwick Township Stormwater Management Ordinance, Section 270-45, A, 1-3 and the 2019 Lititz Borough Stormwater Management Ordinance, Section 405, A, 1-3 which will include the following:

##### **Published Geologic Data Review**

The following published data will be reviewed in order to identify the presence of karst features on the project site.

- Existing Geologic and Hydrogeologic Maps
- Existing Karst Features (Kochanov) Maps
- Historical Aerial Photographs

The above data will be reviewed in an effort to determine the makeup of the bedrock beneath the property, evaluate the drainage and groundwater conditions and determine if karst-related geologic features existed or are present.

### **Site Reconnaissance**

The site will be reviewed for the presence of any karst features through the completion of a geologic site assessment. The site reconnaissance will be completed under the supervision of a registered Professional Geologist. A plan will be generated showing the following site features, if identified:

- (a) open sinkholes
- (b) closed depressions
- (c) lineaments
- (d) fracture traces
- (e) caverns
- (f) intermittent lakes
- (g) ephemeral streams
- (h) bedrock pinnacles (surface or subsurface)

### **Task II – Subsurface Evaluation**

In order to gather information regarding the subsurface conditions and review for the presence of limiting zones, up to ten (10) test pits will be completed in the locations depicted on the plan prepared by the client. Based on the proposed invert elevations, the test pits will extend to a maximum depth of approximately 11 feet below existing site grades or until bucket refusal, whichever is shallower. Noteworthy items such as bedrock, groundwater, springs or soil mottling will be documented where observed.

Site restoration will be limited to backfilling each test location with excavation spoils and compacting with the bucket to match existing grades.

### **Task III - Infiltration Testing**

Based on information provided by the client, two (2) infiltration tests will be completed within each of the ten (10) test pits excavated. Prior to conducting the infiltration testing, each test pit will extend to a minimum depth of approximately 2 feet below the deepest test elevation to identify any limiting zones (i.e. bedrock, groundwater and/or soil mottling).

To determine the infiltration rate of the subsurface soils, the infiltration tests will be conducted utilizing the double-ring infiltrometer method in accordance with the PADEP Best Management Practices manual (Appendix C – Site Evaluation and Soil Testing).

Site restoration will be limited to backfilling each test location with excavation spoils and compacting with the bucket to match existing grades.

Upon completion of the subsurface exploration, soil samples will be returned to our in-house laboratory for further classification and testing. A summary of our services is as follows:

#### ***Field Exploration Services***

- a. Field locate the test locations based on previously referenced plan utilizing a hand-held GPS unit with sub-meter accuracy. Elevations will be interpolated from civil drawings and/or referenced from published topographical maps.
- b. Perform public utility notification through PA One-Call in an attempt to identify public utilities within the work area. ECS will coordinate a private utility locator in an attempt to identify utilities which are not marked by the public utility notification services.
- c. Mobilize excavation equipment to the site.
- d. Provide full-time on-site supervision by ECS's Engineering Field Specialist.
- e. Perform up to 10 test pits to up to 11 feet below existing grades.
- f. Perform up to 20 test stormwater infiltration tests at the depths specified on the plan.
- g. Measure depth of groundwater at each test location prior to backfilling.

Backfilling of the test locations will be performed with auger cuttings. ECS will not be responsible for return trips to site to restore any backfill which has settled.

#### ***Laboratory Testing***

ECS's in-house AMRL certified laboratory will conduct testing of soil samples from this project. Below is the proposed laboratory testing schedule which may be adjusted based on the materials encountered.

- a. Perform up to 10 Natural Moisture tests.
- b. Perform up to 2 Atterberg Limits tests.
- c. Perform up to 2 Gradation Analysis tests (wash sieve).
- d. Perform up to 2 Hydrometers.

#### **GEOTECHNICAL ENGINEERING REPORT**

Upon completion of the subsurface exploration and laboratory testing program, ECS will prepare a written engineering report which presents our findings and recommendations. The comprehensive report will address the methodology utilized to evaluate the site and our recommendations which will include the following items:

- a. A discussion of our understanding of the proposed construction including: locations, dimensions to the extent known.
- b. Observations from our site reconnaissance including current site conditions, surface drainage features and surface topographic conditions. A site location diagram showing the extent of the project site will also be included.
- c. A review of the regional and published geologic conditions with their relevance to the project.
- d. A subsurface characterization and description of the field exploration, laboratory tests and analysis performed.
- e. Final logs will be prepared in accordance with the standard practice for geotechnical engineering. An exploration plan and coordinates of actual test locations will be included. Each log will include the surface elevation, depth of strata and exploration sample type and water levels encountered.
- f. Results of the laboratory testing.
- g. Discussion of site preparation including depth of removal of soil or rock and over-excavation, if applicable.
- h. Discussion of groundwater concerns relative to the planned construction, if any, will be summarized.
- i. Feasibility of stormwater infiltration.
- j. Pavement design recommendations.
- k. Recommendations for additional testing and/or consultation that might be required to complete the geotechnical assessment and related engineering for this project.

## FEE

ECS has provided our Lump Sum Fee for the above Scope of Services.

Task I – Carbonate Assessment: The Lump Sum Fee is **\$1,250.00\***

Task II – Subsurface Evaluation: The Lump Sum Fee is **\$3,900.00\***

Task III – Infiltration Testing: The Lump Sum Fee is **\$1,900.00\***

\*Should ECS be authorized to complete all 3 Tasks as part of one mobilization a lump sum fee of **\$6,400.00** will be invoiced. Additionally, the fee provided for Task III assumes the backhoe will be provided as part of Task II.

In the event that unusual conditions are encountered that would require expansion/modification of our scope of services, we will contact you for authorization prior to proceeding.

This cost does not include time associated with project meetings. If required, these services will be provided on a time and materials basis in accordance with our standard hourly rates as follows:

Senior Project Manager	\$120.00/hour
Principal Engineer	\$150.00/hour

### Utility Clearance and Site Restoration

We will contact PA 1 Call to locate underground utilities at the site; however, our experience indicates that PA 1 Call will not locate utilities beyond the point of distribution (meters or gauge points) on private property. We will coordinate our test locations based on PA 1 Call marking to an attempt to avoid any underground utilities.

Contracting a private utility locator service is not a guarantee that all utilities within a work site will be identified; however, this service will lower the risk to the owner/client. ECS and our clients have had past success in avoiding utility conflicts by augmenting the PA 1 Call services with a private utility locator service. Private utility locator services can identify utility alignments that incorporate significant iron content in the conduit materials. However, private utilities possessing the higher likelihood of not being easily identifiable, beyond the point of distribution, include all utilities not containing significant ferrous (iron) content (examples would include but not be limited to most sanitary sewer alignments, copper or PVC water lines, fiber optic lines without tracer ribbons, copper electric lines with no surface exposure, drainage tiles/pipes, and irrigation lines). We have provided an option to authorize the use of a private utility locator service on the Proposal Authorization Sheet.

Upon completion of the test locations, the test pits will be backfilled with the excavation spoils and compacted with the bucket. No other restoration is included.

### CLOSING

Invoices will be issued on a monthly basis and will provide a week by week breakdown of billing units, unless modified by request of the client. They are normally processed on or around the 10th of each month and represent costs incurred during the previous month. We request that payment be rendered within 30 days of receipt of the invoice. ECS reserves the right to assess a finance charge of 1.5% per month on the outstanding balance over 30 days.

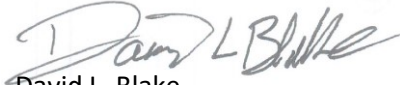
Attached to, and an integral part of, our proposal, are our "General Conditions of Service." These conditions represent the current recommendations of GBA, the Consulting Engineers' Council, and the Geo-Institute of the American Society of Civil Engineers.

Our insurance carrier requires that we receive written authorization prior to initiation of work, and a signed contract prior to the release of any work product. This letter is the agreement for our services. Your acceptance of this proposal may be indicated by signing and returning the enclosed copy to us.

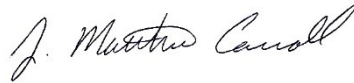
We are pleased to have this opportunity to offer our services and look forward to working with you on the project. If you have questions, please contact the undersigned at 717-767-4788.

Respectfully submitted,

**ECS MID-ATLANTIC, LLC**



David L. Blake  
Geotechnical Senior Project Manager  
[dblake@ecslimited.com](mailto:dblake@ecslimited.com)



J. Matthew Carroll, P.E.  
Office Manager  
[mcarroll@ecslimited.com](mailto:mcarroll@ecslimited.com)

Enclosures:      Proposal Acceptance  
                         Terms and Conditions

Scope of Work: Geotechnical Engineering Services  
 Location: Warwick Stadium Campus Improvements  
 Lititz, Pennsylvania

Client Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please complete this page and return one copy of this proposal to ECS to indicate acceptance of this proposal and to initiate work on the above-referenced project. The Client's signature above also indicates that he/she has read or has had the opportunity to read the accompanying Terms and Conditions of Service and agrees to be bound by such Terms and Conditions of Service.

### **BILLING INFORMATION**

(Please Print or Type)

Name of Client: \_\_\_\_\_  
 Name of Contact Person: \_\_\_\_\_  
 Telephone No. of Contact Person: \_\_\_\_\_  
 Party Responsible for Payment: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Person/Title: \_\_\_\_\_  
 Department: \_\_\_\_\_  
 Billing Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_  
 Fax Number: \_\_\_\_\_  
 Client Project/Account Number: \_\_\_\_\_  
 Special Conditions for Invoice: \_\_\_\_\_  
 Submittal and Approval: \_\_\_\_\_  
 \_\_\_\_\_

ECS offers a full array of services to assist you with *all* phases of your project, including but not limited to:

<i>Phase I, II and III Environmental Site Assessments</i>	<i>Third Party Mechanical, Electrical, Plumbing Inspections Services</i>	<i>Building Envelope, Roofing, and Waterproofing Inspection and Consultation</i>
<i>Archaeological Assessments</i>	<i>Geotechnical Engineering Services</i>	<i>Pre- and Post-Construction Condition Assessments</i>
<i>Wetlands Delineations</i>	<i>Construction Materials Testing</i>	<i>Specialty Materials and Forensics Testing</i>
<i>Asbestos/Lead Paint Services</i>	<i>Septic/Drainfield Design Services</i>	
<i>Indoor Air Quality Mold Services</i>	<i>LEED® Consulting Services</i>	

Please indicate any of the services you are interested in and a member of the ECS team will contact you to discuss how we can be of service to your project.



Client: ELA Group, Inc.

## ECS MID-ATLANTIC, LLC

### TERMS AND CONDITIONS OF SERVICE

The professional services (the "Services") to be provided by ECS MID-ATLANTIC, LLC ["ECS"] pursuant to the Proposal shall be provided in accordance with these Terms and Conditions of Service ("Terms"), including any addenda as may be incorporated or referenced in writing shall form the Agreement between ECS and Client.

**1.0 INDEPENDENT CONSULTANT STATUS** - ECS shall serve as an independent professional consultant to CLIENT for Service on the Project, identified above, and shall have control over, and responsibility for, the means and methods for providing the Services identified in the Proposal, including the retention of Subcontractors and Subconsultants

**2.0 SCOPE OF SERVICES** - It is understood that the fees, reimbursable expenses and time schedule defined in the Proposal are based on information provided by CLIENT and/or CLIENT'S contractors and consultants. CLIENT acknowledges that if this information is not current, is incomplete or inaccurate, if conditions are discovered that could not be reasonably foreseen, or if CLIENT orders additional services, the scope of services will change, even while the Services are in progress.

#### **3.0 STANDARD OF CARE**

**3.1 In fulfilling its obligations and responsibilities enumerated in the Proposal, ECS shall be expected to comply with and its performance evaluated in light of the standard of care expected of professionals in the industry performing similar services on projects of like size and complexity at that time in the region (the "Standard of Care"). Nothing contained in the Proposal, the agreed-upon scope of Services, these Terms and Conditions of Service or any ECS report, opinion, plan or other document prepared by ECS shall constitute a warranty or guaranty of any nature whatsoever.**

**3.2** CLIENT understands and agrees that ECS will rely on the facts learned from data gathered during performance of Services as well as those facts provided by the CLIENT. CLIENT acknowledges that such data collection is limited to specific areas that are sampled, bored, tested, observed and/or evaluated. Consequently, CLIENT waives any and all claims based upon erroneous facts provided by the CLIENT, facts subsequently learned or regarding conditions in areas not specifically sampled, bored, tested, observed or evaluated by ECS.

**3.3** If a situation arises that causes ECS to believe compliance with CLIENT'S directives would be contrary to sound engineering practices, would violate applicable laws, regulations or codes, or will expose ECS to legal claims or charges, ECS shall so advise CLIENT. If ECS' professional judgment is rejected, ECS shall have the right to terminate its Services in accordance with the provisions of Section 25.0, below.

**3.4** If CLIENT decides to disregard ECS' recommendations with respect to complying with applicable Laws or Regulations, ECS shall determine if applicable law requires ECS to notify the appropriate public officials. CLIENT agrees that such determinations are ECS' sole right to make.

#### **4.0 CLIENT DISCLOSURES**

**4.1** Where the Scope of Services requires ECS to penetrate a Site surface, CLIENT shall furnish and/or shall direct CLIENT'S consultant(s) or agent(s) to furnish ECS information identifying the type and location of utility lines and other man-made objects known, suspected, or assumed to be located beneath or behind the Site's surface. ECS shall be entitled to rely on such information for completeness and accuracy without further investigation, analysis, or evaluation.

**4.2** "Hazardous Materials" shall include but not be limited to any substance that poses or may pose a present or potential hazard to human health or the environment whether contained in a product, material, by-product, waste, or sample, and whether it exists in a solid, liquid, semi-solid or gaseous form. CLIENT shall notify ECS of any known, assumed, or suspected regulated, contaminated, or other similar Hazardous Materials that may exist at the Site prior to ECS mobilizing to the Site.

**4.3** If any Hazardous Materials are discovered, or are reasonably suspected by ECS after its Services begin, ECS shall be entitled to amend the scope of Services and adjust its fees to reflect the additional work or personal protective equipment and/or safety precautions required by the existence of such Hazardous Materials.

**5.0 INFORMATION PROVIDED BY OTHERS** - CLIENT waives, releases and discharges ECS from and against any claim for damage, injury or loss allegedly arising out of or in connection with errors, omissions, or inaccuracies in documents and other information in any form provided to ECS by CLIENT or CLIENT'S agents, contractors, or consultants, including such information that becomes incorporated into ECS documents.

**6.0 CONCEALED RISKS** - CLIENT acknowledges that special risks are inherent in sampling, testing and/or evaluating concealed conditions that are hidden from view and/or neither readily apparent nor easily accessible, e.g., subsurface conditions, conditions behind a wall, beneath a floor, or above a ceiling. Such circumstances require that certain assumptions be made regarding existing conditions, which may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of a building or component thereof. Accordingly, ECS shall not be responsible for the verification of such conditions unless verification can be made by simple visual observation. Client agrees to bear any and all costs, losses, damages and expenses (including, but not limited to, the cost of ECS' Additional Services) in any way arising from or in connection with the existence or discovery of such concealed or unknown conditions.

#### **7.0 RIGHT OF ENTRY/DAMAGE RESULTING FROM SERVICES**

**7.1** CLIENT warrants that it possesses the authority to grant ECS right of entry to the Site for the performance of Services. CLIENT hereby grants ECS and its subcontractors and/or agents, the right to enter from time to time onto the property in order for ECS to perform its Services. CLIENT agrees to indemnify and hold ECS

harmless from any claims arising from allegations that ECS trespassed or lacked authority to access the Site.

**7.2** CLIENT warrants that it possesses all necessary permits, licenses and/or utility clearances for the Services to be provided by ECS except where ECS' Proposal explicitly states that ECS will obtain such permits, licenses, and/or utility clearances.

**7.3** ECS will take reasonable precautions to limit damage to the Site and its improvements during the performance of its Services. CLIENT understands that the use of exploration, boring, sampling, or testing equipment may cause minor, but common, damage to the Site. The correction and restoration of such common damage is CLIENT'S responsibility unless specifically included in ECS' Proposal.

**7.4** CLIENT agrees that it will not bring any claims for liability or for injury or loss against ECS arising from (i) procedures associated with the exploration, sampling or testing activities at the Site, (ii) discovery of Hazardous Materials or suspected Hazardous Materials, or (iii) ECS' findings, conclusions, opinions, recommendations, plans, and/or specifications related to discovery of contamination.

#### **8.0 UNDERGROUND UTILITIES**

**8.1** ECS shall exercise the Standard of Care in evaluating client-furnished information as well as information readily and customarily available from public utility locating services (the "Underground Utility Information") in its effort to identify underground utilities. The extent of such evaluations shall be at ECS' sole discretion.

**8.2** CLIENT recognizes that the Underground Utility Information provided to or obtained by ECS may contain errors or be incomplete. CLIENT understands that ECS may be unable to identify the locations of all subsurface utility lines and man-made features.

**8.3** CLIENT waives, releases, and discharges ECS from and against any claim for damage, injury or loss allegedly arising from or related to subterranean structures (pipes, tanks, cables, or other utilities, etc.) which are not called to ECS' attention in writing by CLIENT, not correctly shown on the Underground Utility Information and/or not properly marked or located by the utility owners, governmental or quasi-governmental locators, or private utility locating services as a result of ECS' or ECS' subcontractor's request for utility marking services made in accordance with local industry standards.

#### **9.0 SAMPLES**

**9.1** Soil, rock, water, building materials and/or other samples and sampling by-products obtained from the Site are and remain the property of CLIENT. Unless other arrangements are requested by CLIENT and mutually agreed upon by ECS in writing, ECS will retain samples not consumed in laboratory testing for up to sixty (60) calendar days after the issuance of any document containing data obtained from such samples. Samples consumed by laboratory testing procedures will not be stored.

**9.2** Unless CLIENT directs otherwise, and excluding those issues covered in Section 10.0, CLIENT authorizes ECS to dispose of CLIENT'S non-hazardous samples and sampling or testing process by-products in accordance with applicable laws and regulations.

#### **10.0 ENVIRONMENTAL RISKS**

**10.1** When Hazardous Materials are known, assumed, suspected to exist, or discovered at the Site, ECS will endeavor to protect its employees and address public health, safety, and environmental issues in accordance with the Standard of Care. CLIENT agrees to compensate ECS for such efforts.

**10.2** When Hazardous Materials are known, assumed, or suspected to exist, or discovered at the Site, ECS and/or ECS' subcontractors will exercise the Standard of Care in containerizing and labeling such Hazardous Materials in accordance with applicable laws and regulations, and will leave the containers on Site. CLIENT is responsible for the retrieval, removal, transport and disposal of such contaminated samples, and sampling process byproducts in accordance with applicable law and regulation.

**10.3** Unless explicitly stated in the Scope of Services, ECS will neither subcontract for nor arrange for the transport, disposal, or treatment of Hazardous Materials. At CLIENT'S written request, ECS may assist CLIENT in identifying appropriate alternatives for transport, off-site treatment, storage, or disposal of such substances, but CLIENT shall be solely responsible for the final selection of methods and firms to provide such services. CLIENT shall sign all manifests for the disposal of substances affected by contaminants and shall otherwise exercise prudence in arranging for lawful disposal.

**10.4** In those instances where ECS is expressly retained by CLIENT to assist CLIENT in the disposal of Hazardous Materials, samples, or wastes as part of the Proposal, ECS shall do so only as CLIENT'S agent (notwithstanding any other provision of this AGREEMENT to the contrary). ECS will not assume the role of, nor be considered a generator, storer, transporter, or disposer of Hazardous Materials.

**10.5** Subsurface sampling may result in unavoidable cross-contamination of certain subsurface areas, as when a probe or excavation/boring device moves through a contaminated zone and links it to an aquifer, underground stream, pervious soil stratum, or other hydrous body not previously contaminated, or connects an uncontaminated zone with a contaminated zone. Because sampling is an essential element of the Services indicated herein, CLIENT agrees this risk cannot be eliminated. Provided such services were performed in accordance with the Standard of Care, CLIENT waives, releases and discharges ECS from and against any claim for damage, injury, or loss allegedly arising from or related to such cross-contamination.

10.6 CLIENT understands that a Phase I Environmental Site Assessment (ESA) is conducted solely to permit ECS to render a professional opinion about the likelihood of the site having a Recognized Environmental Condition on, in, beneath, or near the Site at the time the Services are conducted. No matter how thorough a Phase I ESA study may be, findings derived from its conduct are highly limited and ECS cannot know or state for an absolute fact that the Site is unaffected or adversely affected by one or more Recognized Environmental Conditions. CLIENT represents and warrants that it understands the limitations associated with Phase I ESAs.

#### **11.0 OWNERSHIP OF DOCUMENTS**

11.1 ECS shall be deemed the author and owner (or licensee) of all documents, technical reports, letters, photos, boring logs, field data, field notes, laboratory test data, calculations, designs, plans, specifications, reports, or similar documents and estimates of any kind furnished by it [the "Documents of Service"] and shall retain all common law, statutory and other reserved rights, including copyrights. CLIENT shall have a limited, non-exclusive license to use copies of the Documents of Service provided to it in connection with the Project for which the Documents of Service are provided until the completion of the Project.

11.2 ECS' Services are performed and Documents of Service are provided for the CLIENT'S sole use. CLIENT understands and agrees that any use of the Documents of Service by anyone other than the CLIENT, its licensed consultants and its contractors is not permitted. CLIENT further agrees to indemnify and hold ECS harmless for any errors, omissions or damage resulting from its contractors' use of ECS' Documents of Service.

11.3 CLIENT agrees to not use ECS' Documents of Service for the Project if the Project is subsequently modified in scope, structure or purpose without ECS' prior written consent. Any reuse without ECS' written consent shall be at CLIENT'S sole risk and without liability to ECS or to ECS' subcontractor(s). CLIENT agrees to indemnify and hold ECS harmless for any errors, omissions or damage resulting from its use of ECS' Documents of Service after any modification in scope, structure or purpose.

11.4 CLIENT agrees to not make any modification to the Documents of Service without the prior written authorization of ECS. To the fullest extent permitted by law, CLIENT agrees to indemnify, defend, and hold ECS harmless from any damage, loss, claim, liability or cost (including reasonable attorneys' fees and defense costs) arising out of or in connection with any unauthorized modification of the Documents of Service by CLIENT or any person or entity that acquires or obtains the Documents of Service from or through CLIENT. CLIENT represents and warrants that the Documents of Service shall be used only as submitted by ECS.

#### **12.0 SAFETY**

12.1 Unless expressly agreed to in writing in its Proposal, CLIENT agrees that ECS shall have no responsibility whatsoever for any aspect of site safety other than for its own employees. Nothing herein shall be construed to relieve CLIENT and/or its contractors, consultants or other parties from their responsibility for site safety. CLIENT also represents and warrants that the General Contractor is solely responsible for Project site safety and that ECS personnel may rely on the safety measures provided by the General Contractor.

12.2 In the event ECS assumes in writing limited responsibility for specified safety issues, the acceptance of such responsibilities does not and shall not be deemed an acceptance of responsibility for any other non-specified safety issues, including, but not limited to those relating to excavating, trenching, shoring, drilling, backfilling, blasting, or other construction activities.

#### **13.0 CONSTRUCTION TESTING AND REMEDIATION SERVICES**

13.1 CLIENT understands that construction testing and observation services are provided in an effort to reduce, but cannot eliminate, the risk of problems arising during or after construction or remediation. CLIENT agrees that the provision of such Services does not create a warranty or guarantee of any type.

13.2 Monitoring and/or testing services provided by ECS shall not in any way relieve the CLIENT'S contractor(s) from their responsibilities and obligations for the quality or completeness of construction as well as their obligation to comply with applicable laws, codes, and regulations.

13.3 ECS has no responsibility whatsoever for the means, methods, techniques, sequencing or procedures of construction selected, for safety precautions and programs incidental to work or services provided by any contractor or other consultant. ECS does not and shall not have or accept authority to supervise, direct, control, or stop the work of any contractor or consultant or any of their subcontractors or subconsultants.

13.4 ECS strongly recommends that CLIENT retain ECS to provide construction monitoring and testing services on a full time basis to lower the risk of defective or incomplete Work being installed by CLIENT'S contractor(s). If CLIENT elects to retain ECS on a part time basis for any aspect of construction monitoring and/or testing, CLIENT accepts the risks that a lower level of construction quality may occur and that defective or incomplete work may result and not be detected by ECS' part time monitoring and testing. Unless the CLIENT can show that the error or omission is contained in ECS' reports, CLIENT waives, releases and discharges ECS from and against any other claims for errors, omissions, damages, injuries, or loss alleged to arise from defective or incomplete work that was monitored or tested by ECS on a part time basis. Except as set forth in the preceding sentence, CLIENT agrees to indemnify and hold ECS harmless from all damages, costs, and attorneys' fees, for any claims alleging errors, omissions, damage, injury or loss allegedly resulting from Work that was monitored or tested by ECS on a part time basis.

**14.0 CERTIFICATIONS** - CLIENT may request, or governing jurisdictions may require, ECS to provide a "certification" regarding the Services provided by ECS. Any "certification" required of ECS by the CLIENT or jurisdiction(s) having authority over some or all aspects of the Project shall consist of ECS' inferences and professional opinions based on the limited sampling, observations, tests, and/or analyses performed by ECS at discrete locations and times. Such "certifications" shall constitute ECS' professional opinion of a condition's existence, but ECS does not guarantee that such condition exists, nor does it relieve other parties of the responsibilities or obligations such parties have with respect to

the possible existence of such a condition. CLIENT agrees it cannot make the resolution of any dispute with ECS or payment of any amount due to ECS contingent upon ECS signing any such "certification."

#### **15.0 BILLINGS AND PAYMENTS**

15.1 Billings will be based on the unit rates, plus travel costs, and other reimbursable expenses as stated in the Professional Fees section of the Proposal. Any Estimate of Professional Fees stated in these Terms shall not be considered as a not-to-exceed or lump sum amount unless otherwise explicitly stated. CLIENT understands and agrees that even if ECS agrees to a lump sum or not-to-exceed amount, that amount shall be limited to number of hours, visits, trips, tests, borings, or samples stated in the Proposal.

15.2 CLIENT agrees that all Professional Fees and other unit rates shall be adjusted annually to account for inflation based on the most recent 12-month average of the Consumer Price Index (CPI-U) for all items as established by www.bls.gov when the CPI-U exceeds an annual rate of 2.0%.

15.3 Should ECS identify a Changed Condition(s), ECS shall notify the CLIENT of the Changed Condition(s). ECS and CLIENT shall promptly and in good faith negotiate an amendment to the Scope of Services, Professional Fees, and time schedule.

15.4 CLIENT recognizes that time is of the essence with respect to payment of ECS' invoices, and that timely payment is a material consideration for this agreement. All payment shall be in U.S. funds drawn upon U.S. banks and in accordance with the rates and charges set forth in the Professional Fees. Invoices are due and payable upon receipt.

15.5 If CLIENT disputes all or part of an invoice, CLIENT shall provide ECS with written notice stating in detail the facts of the dispute within fifteen (15) calendar days of the invoice. CLIENT agrees to pay the undisputed amount of such invoice promptly.

15.6 ECS reserves the right to charge CLIENT an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by Law, whichever is lower) of the invoiced amount per month for any payment received by ECS more than thirty (30) calendar days from the date of the invoice, excepting any portion of the invoiced amount in dispute. All payments will be applied to accrued interest first and then to the unpaid principal amount. Payment of invoices shall not be subject to unilateral discounting or set-offs by CLIENT.

15.7 CLIENT agrees that its obligation to pay for the Services is not contingent upon CLIENT'S ability to obtain financing, zoning, approval of governmental or regulatory agencies, permits, final adjudication of a lawsuit, CLIENT'S successful completion of the Project, settlement of a real estate transaction, receipt of payment from CLIENT'S client, or any other event unrelated to ECS provision of Services. Retainage shall not be withheld from any payment, nor shall any deduction be made from any invoice on account of penalty, liquidated damages, or other sums incurred by CLIENT. It is agreed that all costs and legal fees including actual attorney's fees, and expenses incurred by ECS in obtaining payment under this Agreement, in perfecting or obtaining a lien, recovery under a bond, collecting any delinquent amounts due, or executing judgments, shall be reimbursed by CLIENT.

15.8 Unless CLIENT has provided notice to ECS in accordance with Section 16.0 of these Terms, payment of any invoice by the CLIENT shall mean that the CLIENT is satisfied with ECS' Services and is not aware of any defects in those Services.

#### **16.0 DEFECTS IN SERVICE**

16.1 CLIENT, its personnel, its consultants, and its contractors shall promptly inform ECS during active work on any project of any actual or suspected defects in the Services so to permit ECS to take such prompt, effective remedial measures that in ECS' opinion will reduce or eliminate the consequences of any such defective Services. The correction of defects attributable to ECS' failure to perform in accordance with the Standard of Care shall be provided at no cost to CLIENT. However, ECS shall not be responsible for the correction of any deficiency attributable to CLIENT-furnished information, the errors, omissions, defective materials, or improper installation of materials by CLIENT's personnel, consultants or contractors, or work not observed by ECS. CLIENT shall compensate ECS for the costs of correcting such defects.

16.2 Modifications to reports, documents and plans required as a result of jurisdictional reviews or CLIENT requests shall not be considered to be defects. CLIENT shall compensate ECS for the provision of such Services.

**17.0 INSURANCE** - ECS represents that it and its subcontractors and subconsultants maintain Workers Compensation insurance, and that ECS is covered by general liability, automobile and professional liability insurance policies in coverage amounts it deems reasonable and adequate. ECS shall furnish certificates of insurance upon request. The CLIENT is responsible for requesting specific inclusions or limits of coverage that are not present in ECS insurance package. The cost of such inclusions or coverage increases, if available, will be at the expense of the CLIENT.

#### **18.0 LIMITATION OF LIABILITY**

**18.1 CLIENT AGREES TO ALLOCATE CERTAIN RISKS ASSOCIATED WITH THE PROJECT BY LIMITING ECS' TOTAL LIABILITY TO CLIENT ARISING FROM ECS' PROFESSIONAL LIABILITY, I.E. PROFESSIONAL ACTS, ERRORS, OR OMISSIONS AND FOR ANY AND ALL CAUSES INCLUDING NEGLIGENCE, STRICT LIABILITY, BREACH OF CONTRACT, OR BREACH OF WARRANTY, INJURIES, DAMAGES, CLAIMS, LOSSES, EXPENSES, OR CLAIM EXPENSES (INCLUDING REASONABLE ATTORNEY'S FEES) RELATING TO PROFESSIONAL SERVICES PROVIDED UNDER THIS AGREEMENT TO THE FULLEST EXTENT PERMITTED BY LAW. THE ALLOCATION IS AS FOLLOWS.**

18.1.1 If the proposed fees are \$10,000 or less, ECS' total aggregate liability to CLIENT shall not exceed \$20,000, or the total fee received for the services rendered, whichever is greater.

18.1.2 If the proposed fees are in excess of \$10,000, ECS' total aggregate liability to CLIENT shall not exceed \$40,000, or the total fee for the services rendered, whichever is greater.

18.2 CLIENT agrees that ECS shall not be responsible for any injury, loss or damage of any nature, including bodily injury and property damage, arising directly or indirectly, in whole or in part, from acts or omissions by the CLIENT, its employees, agents, staff, consultants, contractors, or subcontractors to the extent such injury, damage,

- or loss is caused by acts or omissions of CLIENT, its employees, agents, staff, consultants, contractors, subcontractors or person/entities for whom CLIENT is legally liable.
- 18.3 CLIENT agrees that ECS' liability for all non-professional liability arising out of this agreement or the services provided as a result of the Proposal be limited to \$500,000.
- 19.0 INDEMNIFICATION**
- 19.1 Subject Section 18.0, ECS agrees to hold harmless and indemnify CLIENT from and against damages arising from ECS' negligent performance of its Services, but only to the extent that such damages are found to be caused by ECS' negligent acts, errors or omissions, (specifically excluding any damages caused by any third party or by the CLIENT.)
- 19.2 To the fullest extent permitted by Law, CLIENT agrees to indemnify, and hold ECS harmless from and against any and all liability, claims, damages, demands, fines, penalties, costs and expenditures (including reasonable attorneys' fees and costs of litigation defense and/or settlement) ["Damages"] caused in whole or in part by the negligent acts, errors, or omissions of the CLIENT or CLIENT'S employees, agents, staff, contractors, subcontractors, consultants, and clients, provided such Damages are attributable to: (a) the bodily injury, personal injury, sickness, disease and/or death of any person; (b) the injury to or loss of value to tangible personal property; or (c) a breach of these Terms. The foregoing indemnification shall not apply to the extent such Damage is found to be caused by the sole negligence, errors, omissions or willful misconduct of ECS.
- 19.3 It is specifically understood and agreed that in no case shall ECS be required to pay an amount of Damages disproportionate to ECS' culpability. **IF CLIENT IS A HOMEOWNER, HOMEOWNERS' ASSOCIATION, CONDOMINIUM OWNER, CONDOMINIUM OWNER'S ASSOCIATION, OR SIMILAR RESIDENTIAL OWNER, ECS RECOMMENDS THAT CLIENT RETAIN LEGAL COUNSEL BEFORE ENTERING INTO THIS AGREEMENT TO EXPLAIN CLIENT'S RIGHTS AND OBLIGATIONS HEREUNDER, AND THE LIMITATIONS, AND RESTRICTIONS IMPOSED BY THIS AGREEMENT. CLIENT AGREES THAT FAILURE OF CLIENT TO RETAIN SUCH COUNSEL SHALL BE A KNOWING WAIVER OF LEGAL COUNSEL AND SHALL NOT BE ALLOWED ON GROUNDS OF AVOIDING ANY PROVISION OF THIS AGREEMENT.**
- 19.4 **IF CLIENT IS A RESIDENTIAL BUILDER OR RESIDENTIAL DEVELOPER, CLIENT SHALL INDEMNIFY AND HOLD HARMLESS ECS AGAINST ANY AND ALL CLAIMS OR DEMANDS DUE TO INJURY OR LOSS INITIATED BY ONE OR MORE HOMEOWNERS, UNIT-OWNERS, OR THEIR HOMEOWNER'S ASSOCIATION, COOPERATIVE BOARD, OR SIMILAR GOVERNING ENTITY AGAINST CLIENT WHICH RESULTS IN ECS BEING BROUGHT INTO THE DISPUTE.**
- 19.5 **IN NO EVENT SHALL THE DUTY TO INDEMNIFY AND HOLD ANOTHER PARTY HARMLESS UNDER THIS SECTION 19.0 INCLUDE THE DUTY TO DEFEND.**
- 20.0 CONSEQUENTIAL DAMAGES**
- 20.1 CLIENT shall not be liable to ECS and ECS shall not be liable to CLIENT for any consequential damages incurred by either due to the fault of the other or their employees, consultants, agents, contractors or subcontractors, regardless of the nature of the fault or whether such liability arises in breach of contract or warranty, tort, statute, or any other cause of action. Consequential damages include, but are not limited to, loss of use and loss of profit.
- 20.2 ECS shall not be liable to CLIENT, or any entity engaged directly or indirectly by CLIENT, for any liquidated damages due to any fault, or failure to act, in part or in total by ECS, its employees, agents, or subcontractors.
- 21.0 SOURCES OF RECOVERY**
- 21.1 All claims for damages related to the Services provided under this agreement shall be made against the ECS entity contracting with the CLIENT for the Services, and no other person or entity. CLIENT agrees that it shall not name any affiliated entity including parent, peer, or subsidiary entity or any individual officer, director, or employee of ECS, specifically including its professional engineers and geologists.
- 21.2 In the event of any dispute or claim between CLIENT and ECS arising out of or in connection with the Project and/or the Services, CLIENT and ECS agree that they will look solely to each other for the satisfaction of any such dispute or claim. Moreover, notwithstanding anything to the contrary contained in any other provision herein, CLIENT and ECS' agree that their respective shareholders, principals, partners, members, agents, directors, officers, employees, and/or owners shall have no liability whatsoever arising out of or in connection with the Project and/or Services provided hereunder. In the event CLIENT brings a claim against an affiliated entity, parent entity, subsidiary entity, or individual officer, director or employee in contravention of this Section 21, CLIENT agrees to hold ECS harmless from and against all damages, costs, awards, or fees (including attorneys' fees) attributable to such act.
- 22.0 THIRD PARTY CLAIMS EXCLUSION** - CLIENT and ECS agree that the Services are performed solely for the benefit of the CLIENT and are not intended by either CLIENT or ECS to benefit any other person or entity. To the extent that any other person or entity is benefited by the Services, such benefit is purely incidental and such other person or entity shall not be deemed a third party beneficiary to the AGREEMENT. No third-party shall have the right to rely on ECS' opinions rendered in connection with ECS' Services without written consent from both CLIENT and ECS, which shall include, at a minimum, the third-party's agreement to be bound to the same Terms and Conditions contained herein and third-party's agreement that ECS' Scope of Services performed is adequate.
- 23.0 DISPUTE RESOLUTION**
- 23.1 In the event any claims, disputes, and other matters in question arising out of or relating to these Terms or breach thereof (collectively referred to as "Disputes"), the parties shall promptly attempt to resolve all such Disputes through executive negotiation between senior representatives of both parties familiar with the Project. The parties shall arrange a mutually convenient time for the senior representative of each party to meet. Such meeting shall occur within fifteen (15) days of either party's written request for executive negotiation or as otherwise mutually agreed.
- Should this meeting fail to result in a mutually agreeable plan for resolution of the Dispute, CLIENT and ECS agree that either party may bring litigation.
- 23.2 CLIENT shall make no claim (whether directly or in the form of a third-party claim) against ECS unless CLIENT shall have first provided ECS with a written certification executed by an independent engineer licensed in the jurisdiction in which the Project is located, reasonably specifying each and every act or omission which the certifier contends constitutes a violation of the Standard of Care. Such certificate shall be a precondition to the institution of any judicial proceeding and shall be provided to ECS thirty (30) days prior to the institution of such judicial proceedings.
- 23.3 Litigation shall be instituted in a court of competent jurisdiction in the county or district in which ECS' office contracting with the CLIENT is located. The parties agree that the law applicable to these Terms and the Services provided pursuant to the Proposal shall be the laws of the Commonwealth of Virginia, but excluding its choice of law rules. Unless otherwise mutually agreed to in writing by both parties, CLIENT waives the right to remove any litigation action to any other jurisdiction. Both parties agree to waive any demand for a trial by jury.
- 24.0 CURING A BREACH**
- 24.1 A party that believes the other has materially breached these Terms shall issue a written cure notice identifying its alleged grounds for termination. Both parties shall promptly and in good faith attempt to identify a cure for the alleged breach or present facts showing the absence of such breach. If a cure can be agreed to or the matter otherwise resolved within thirty (30) calendar days from the date of the termination notice, the parties shall commit their understandings to writing and termination shall not occur.
- 24.2 Either party may waive any right provided by these Terms in curing an actual or alleged breach; however, such waiver shall not affect future application of such provision or any other provision.
- 25.0 TERMINATION**
- 25.1 CLIENT or ECS may terminate this agreement for breach or these terms, non-payment, or a failure to cooperate. In the event of termination, the effecting party shall so notify the other party in writing and termination shall become effective fourteen (14) calendar days after receipt of the termination notice.
- 25.2 Irrespective of which party shall effect termination, or the cause therefore, ECS shall promptly render to CLIENT a final invoice and CLIENT shall immediately compensate ECS for Services rendered and costs incurred including those Services associated with termination itself, including without limitation, demobilizing, modifying schedules, and reassigning personnel.
- 26.0 TIME BAR TO LEGAL ACTION** - Unless prohibited by law, and notwithstanding any Statute that may provide additional protection, CLIENT and ECS agree that a lawsuit by either party alleging a breach of this agreement, violation of the Standard of Care, non-payment of invoices, or arising out of the Services provided hereunder, must be initiated in a court of competent jurisdiction no more than two (2) years from the time the party knew, or should have known, of the facts and conditions giving rise to its claim, and shall under no circumstances shall such lawsuit be initiated more than three (3) years from the date of substantial completion of ECS' Services.
- 27.0 ASSIGNMENT** - CLIENT and ECS respectively bind themselves, their successors, assigns, heirs, and legal representatives to the other party and the successors, assigns, heirs and legal representatives of such other party with respect to all covenants of these Terms. Neither CLIENT nor ECS shall assign these Terms, any rights thereunder, or any cause of action arising therefrom, in whole or in part, without the written consent of the other. Any purported assignment or transfer, except as permitted above, shall be deemed null, void and invalid, the purported assignee shall acquire no rights as a result of the purported assignment or transfer and the non-assigning party shall not recognize any such purported assignment or transfer.
- 28.0 SEVERABILITY** - Any provision of these Terms later held to violate any law, statute, or regulation, shall be deemed void, and all remaining provisions shall continue in full force and effect. CLIENT and ECS shall endeavor to quickly replace a voided provision with a valid substitute that expresses the intent of the issues covered by the original provision.
- 29.0 SURVIVAL** - All obligations arising prior to the termination of the agreement represented by these Terms and all provisions allocating responsibility or liability between the CLIENT and ECS shall survive the substantial completion of Services and the termination of the agreement.
- 30.0 TITLES; ENTIRE AGREEMENT**
- 30.1 The titles used herein are for general reference only and are not part of the Terms and Conditions.
- 30.2 These Terms and Conditions of Service together with the Proposal, including all exhibits, appendixes, and other documents appended to it, constitute the entire agreement between CLIENT and ECS. CLIENT acknowledges that all prior understandings and negotiations are superseded by this agreement.
- 30.3 CLIENT and ECS agree that subsequent modifications to the agreement represented by these shall not be binding unless made in writing and signed by authorized representatives of both parties.
- 30.4 All preprinted terms and conditions on CLIENT'S purchase order, Work Authorization, or other service acknowledgement forms, are inapplicable and superseded by these Terms and Conditions of Service.
- 30.5 CLIENT's execution of a Work Authorization, the submission of a start work authorization (oral or written) or issuance of a purchase order constitutes CLIENT's acceptance of this Proposal and its agreement to be fully bound the foregoing Terms. If CLIENT fails to provide ECS with a signed copy of these Terms or the attached Work Authorization, CLIENT agrees that by authorizing and accepting the services of ECS, it will be fully bound by these Terms as if they had been signed by CLIENT.