



# **ECS** Mid-Atlantic, LLC

Estimated Cost Proposal for Construction Materials Observation and Testing Services

Town of Vienna Police Station

215 Center Street South  
Vienna, Fairfax County,  
Virginia

ECS Proposal Number 01:62566-CP

October 9, 2020



October 9, 2020

Ms. Gina Gilpin  
Purchasing Agent  
Town of Vienna,  
127 Center Street S  
Vienna, Virginia 22180

ECS Proposal No. 01:62566-CP

Reference: Estimated Cost Proposal for Construction Materials Observation and Testing Services,  
Town of Vienna Police Station, Vienna, Fairfax County, Virginia

Dear Ms. Gilpin:

As requested, ECS Mid-Atlantic, LLC is pleased to present the following estimated cost proposal for providing construction materials observation and testing services during construction of Vienna Police Station, Fairfax County, Virginia. The services offered via this proposal are intended to cover 100% of the Special Inspection services required by Fairfax County and Chapter 17 of the IBC 2015/VA Building Code. ECS can complete all of these services "in house," without the aid of sub-consultants. This proposal is prepared in accordance with DGS contract DEB07012016.

#### PROJECT OVERVIEW

We understand that the project will consist of the construction of a new approximately 28,000 square-foot two-story Police Station Building at 215 Center Street South, Vienna, in Fairfax County, along with associated earthwork, site utilities, stormwater management (SWM) system, site paving and surface parking lots. The structural steel-framed structure with a partial below-grade basement will be founded on conventional shallow mat and wall footings with reinforced concrete basement walls and reinforced solid grouted CMU stem walls. The new building will be constructed of structural concrete masonry unit walls, reinforced concrete slab on grade and elevated composite deck slab system for the roof slab on cold-formed-steel roof trusses, with RTU support framings.

#### SCOPE OF WORK

Based upon the provided project drawings, the geotechnical report, our understanding of the project, our proposed scope of testing and inspection services under this contract will include Special Inspections and sitework services required by code and Building Envelope services requested in the IFB 21-03.

Special Inspections scope will include the following items: the observation of SOE installation, footing excavations, bearing capacity, reinforcing steel, post-installed anchors, structural steel/cold-formed steel framing observations – including roof trusses, masonry and the observation, testing and sampling of structural concrete and Fireproofing as required by the critical structures program.

Building Envelope scope of inspections will consist of below-grade waterproofing, underslab drainage, roofing, air barriers, curtain wall and glass installation.

Sitework inspections will consist of soils and aggregates density testing for wet utility installation, including the installation of the underground detention system, temporary, density testing for site backfills, roads and parking lots, aggregate base and concrete for hardscape construction including curbs, sidewalks, bollards, heavy duty pavement for apron to dumpster pad, site walls and furnishings, bike racks, light bollards, fencing and gates, light pole bases, and asphalt paving. Sitework include utilities tie-ins into existing Locust Street SW and Center Street South.

We are providing a single proposal that includes estimated budgets for Special Inspections, Building Envelope & Sitework inspections services. The total estimated cost for Special Inspections and Sitework services is in the amount of **\$78,276.40**. Building Envelope Services are not required by Special Inspections but were requested and the estimated cost for it is \$34,210.00 listed below.

	Proposal	Estimated Cost
1.	CMOT Services (Special Inspections)	\$55,100.40
2.	CMOT Services (Sitework)	\$23,176.00
	<b>Estimated Total for Special Inspections &amp; Sitework</b>	<b>\$78,276.40</b>

	Proposal	Estimated Cost
1.	Building Envelope Services –Requested but not required by Special Inspections	\$34,210.00
	<b>Estimated Total</b>	<b>\$34,210.00</b>

A detailed list of our scope of services is included in Appendix I of this proposal. In addition to these standard services, we have the in-house capability to provide other services should the situation call for such efforts. Examples include the acquisition and testing of concrete core samples, determination of slab levelness (F Values), location of reinforcing steel in hardened concrete, performing structural load tests, monitoring of earth retention system performance, and performing weekly SWPPP observations.

#### FEE FOR SERVICES

ECS proposes to conduct the aforementioned scope of services on a unit cost basis in accordance with the fee schedule included in Appendix II. We have utilized this fee schedule along with the plans and specification and our understanding of the project schedule to derive an estimated fee which is shown in Appendix III. All services provided for this project will be billed in accordance with the unit rate schedule provided as Appendix II of this proposal. Our considerable professional judgment was used to determine the estimated cost; however, there are many factors that are not in ECS' control once the project starts, such as the contractor's working hours and intensity, which could affect over-time costs for our services. We will endeavor to work and invoice the client within the confines of our estimated fee; however, the estimated fee is not represented as a lump sum price or a not-to-exceed value.

Should supplemental services be deemed necessary at a later date, they would be invoiced at the rate noted on the fee schedule in effect at that time, unless otherwise agreed upon in advance. All unit prices listed herein shall remain as stated throughout the project. An estimated cost has been included in Appendix III for your budgeting purposes. All services provided for this project will be billed in accordance with the unit rate schedule provided in Appendix II of this proposal. We have utilized this fee schedule along with the plans and specification and our understanding of the project including all anticipated services in our unit price list to derive a total estimated cost which is shown in Appendix III.

ECS field services will be as **on site time only with no charge for travel time and mileage**. There will be no minimum charge for field related services. Our unit rates are based on a normal 8 hour work day, Monday through Friday, between normal business hours of 7:00 a.m. to 4:00 p.m. Overtime beyond 40 hours/week, and on Holidays will be invoiced at a rate of 1.5 times the normal hourly rate indicated above. Scheduling should occur prior to 3:00 p.m. on the day before services are required. Same-day scheduling for technician services may result in non-coverage of such inspections.

### ESTIMATED COST

This estimated cost proposal has been prepared for your budgeting purposes. ECS has utilized the provided plans prepared by Dewberry dated August 28, 2020, and our experience with similar projects for the purpose of generating our estimated cost. The construction schedule was not provided at the time this proposal was prepared. Based on the information available at this time, and our experience with previous projects of similar size and scope, ECS has made the following assumptions:

- ECS total involvement on the project 35 weeks (8 months)
- Work will be performed during normal business hours
- One technician shall be able to perform proposed services
- Site Work will take approximately 11 weeks :

The project is assumed to start with the initial site grading and SOE installation. We have assumed that for the first 2 weeks ECS will be needed on site periodically when requested on average 20 hours per week followed by 4 weeks of full time inspections on average 40 hours per week; We assume that some of sitework activities will be performed simultaneously with building inspections noted below. We also assume that at the end of the project ECS services will be needed for hardscapes for another 11 weeks.

- Special Inspections Services will take approximately 24 weeks

Building foundations are assumed to start while sitework activities are in progress (6 weeks lagging is assumed). One technician is assumed to observe building construction and site work activities. We have assumed 12 weeks of Full Time inspections on average 40 hours per week until slab on grade and walls are installed. Later we have assumed that one technician will be needed on site on average 15 hours per week during concrete placement for slab on deck and other miscellaneous inspections.

We have assumed 10 visits for the structural steel observations for 5 weeks and 16 visits for the fireproofing observations testing for 5 weeks. We assume that there will be about 3 week lagging between structural steel and fireproofing inspections.

### BILLING AND CONTRACT CONDITIONS

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. Upon request, ECS will provide a separate invoice for services provided outside of the proposed scope of work. Invoices are normally processed on or around the 10<sup>th</sup> of each month and represent costs incurred during the previous month. These invoices will also display a

monthly cumulative summary of project costs to date. This monthly summary will serve as a means of monitoring expenses as they relate to job progress. 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. ECS also reserves the right to withhold final certifications until outstanding balances have been paid in full.

### ECS ADVANTAGES

In addition to the standard services many local testing agencies provide, ECS has distinguished itself on multiple disciplines to allow us to “Set the Standard of Service” for you, our clients. Most notably:

- **Resources.** ECS is the largest testing and inspection firm in the Washington, DC metropolitan area, which allows us to meet your schedule and project timeline requirements. Our size has allowed us to maintain consistent staffing levels to react to your fast-paced projects.
- **Experience.** In 2018, ECS celebrated its 30<sup>th</sup> anniversary. We have worked on some of the region’s most notable projects including: the rebuilding of the Pentagon, National Harbor, the National Geospatial Agency Headquarters, and Constitution Square.
- **Technology.** Electronic Paperless reporting – described in detail below. All recorded data is stored digitally for ease of reproduction.
- **Efficiency.** Our paperless reporting allows us to save costs which we pass directly to our clients.

### ELECTRONIC PAPERLESS REPORTING

ECS utilizes advanced communications and information technology to reduce the time from actual field reporting to the distribution of a report approved by the Project Manager and Principal Engineer. During each day of construction activities, ECS field technicians electronically enter test data into ETHEL (ECS Technician Handheld Electronic Logbook) while in the field. The test data is then transmitted to the branch office via wireless technology. The field report is then entered into our database and released into FRED (Field Report Electronic Distribution).

Once in FRED, the electronic copy of the field report is reviewed first by the Project Manager and then the Principal Engineer. Upon final review, electronic signatures and Professional Engineer’s seal are applied to the report. The report is then printed, mailed, faxed or emailed to those on the distribution list and an electronic copy is archived on our servers for rapid retrieval. This system makes it possible to provide all project reports electronically at the end of the project. The implementation of FRED has significantly improved efficiency in the review and approval process of reports through the office, while allowing managers to efficiently monitor progress of the project.

ECS daily field reports and laboratory reports are generally submitted and on your desk in electronic format within 24 to 36 hours of the performance date. If deficiencies or non-compliances are noted, a running punch list of deficiency items is maintained and the list is included with the reports so that problems may be resolved prior to the performance of additional work. Copies of reports will be forwarded to each party designated by the client, at no extra charge, as part of our service.

**SUMMARY AND ACCEPTANCE**

Attached to this letter, and an integral part of our proposal, are our "Terms and Conditions of Service" (Appendix V). These conditions represent the current recommendations of the Association of Soil and Foundation Engineers, the Consulting Engineers' Council, and the Geotechnical Division 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 (Appendix IV). We are pleased to have this opportunity to offer our services and look forward to working with you on the project.

Respectfully,

**ECS MID-ATLANTIC, LLC**



Vivian M. Benjamin  
Project Manager



Lina Ayari  
Department Manager



Paul D. Agutter, PE  
Managing Principal, VP

**ATTACHMENTS:**

Appendix I - Scope of Services  
Appendix II - Project Unit Rates  
Appendix III - Estimated Costs  
Appendix IV - Proposal Acceptance  
Appendix V - Terms and Conditions of Service

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## APPENDIX I – SCOPE OF SERVICES

### A. Earthwork/Foundation:

1. Perform appropriate laboratory testing on materials proposed for use as fill, backfill, and paving subgrade in accordance with project specifications. Testing may include:
  - a. Grain Size Distribution, ASTM D-422.
  - b. Liquid and Plastic (Atterberg) Limits, ASTM D-4318.
  - c. Proctor Moisture Density Relationships ASTM D-698 or VTM-1.
2. Periodically observe excavation operations to document removal of unsuitable materials including debris, frozen soil, problem clays or stones with a maximum dimension greater than 6 inches.
3. Observe conditions of bottom of excavations prior to foundation preparation, including proofrolling and other testing of subgrades; note seepage of water, and suggest and observe corrective measures at problem areas.
4. Observe the installation of SOE system for conformance with approved project documents.
5. Observe placement of fill and backfill (including backfill in utility trenches within the building footprint and against foundation walls) to test compliance with project requirements. Perform in-place density tests as required by project specifications, and test each lift for compaction.
6. Where deficiencies are noted during fill or backfill placement, suggest and observe remedial actions, including reworking and re-compacting of materials.
7. Document the dimensions of foundation elements and report compliance with design specifications and approved drawings.
8. Test surface bearing of soils at footing subgrades to verify that the soils meet or exceed design parameters through correlation of soil boring data, use of the Dynamic Cone Penetrometer, and reference to approved drawings.
9. Document the bearing conditions of soils at foundation element subgrades.
10. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies.

### B. Cast-in-Place Concrete:

1. Test and report concrete for compliance with the provisions of ACI 318, 301, 214, 304, 305 and 306, local building codes, generally accepted construction practices, and specific project requirements.
2. Observe placement of reinforcing steel and document proper size, grade, spacing cover, cleanliness, length, location and type of splices, and report compliance with project plans and specifications.
3. Observe placement of concrete and document procedures with regard to forming, vibration, and curing.
4. Sample concrete at the frequency stated in the project specifications and perform the following tests and functions:
  - a. Confirm mix design
  - b. Slump
  - c. Air Content
  - d. Temperature
  - e. Batch-to-placement time
  - f. Cast test cylinders (4x8" are proposed)Sampling, testing, and curing of specimens in the field shall be performed in accordance with applicable ASTM guidelines and project requirements. Additional tests shall be performed as needed in the event deficiencies are encountered. Compliance with extreme weather procedures will also be documented.
5. Cure and test concrete cylinders in the laboratory as directed by the project specifications and in accordance with ASTM C-31 and C-39.
6. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies.



C. Structural Steel:

1. Document welder certifications to confirm that all welders have current certifications for welding operations that they perform.
2. Perform the following functions related to structural steel erection in the field:
  - a. Visual observation of all welded and bolted connections.
  - b. Examine tightness of at least 15% of high strength bolts at random.
  - c. Perform ultrasonic testing on full penetration welds in accordance with project specifications.
  - d. Examine tightness of all bolts on "slip critical" connections using calibrated torque wrench or other method agreed upon during pre-construction meeting.
  - e. Perform additional testing in accordance with specifications if maximum allowable rejection rates are exceeded.
3. Visual examination of steel deck installation to document installation, i.e. bearing, side and end lap, etc.
4. Visual examination of steel joists to document conditions and installation in accordance with the project specifications and the Steel Joist Institute.
5. Visually observe and perform testing as necessary, on shear studs in accordance with project specifications.
6. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies.

D. Masonry (CMU):

1. Periodically observe procedures and materials to document compliance with ACI 530.1, Contract Documents, and sound construction practices.
2. Monitor proper construction methods with regards to proper placement of reinforcing steel, proportioning of mortar, planeness and verticality of masonry walls, and placement of grout.
3. Obtain grout prisms as required in the specifications, and test grout for compressive strength as specified in ASTM C 1019.
4. Obtain mortar cylinders as required in the specifications, and test mortar for compressive strength as specified in ASTM C 780.
5. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies.

E. Sprayed-on Fireproofing:

1. Review drawings, specifications, and approved submittals to determine if sufficient information is available to complete observations and testing
2. Visual examination of substrate prior to application of fireproofing.
3. Visual examination of applied fireproofing materials.
4. Perform field thickness testing and take density samples using the procedures of ASTM E 605 to report compliance with building code and project specification requirements. Frequency of testing will be in accordance with applicable building code and project specification requirements
5. Perform laboratory density tests on fireproofing samples using the procedures of ASTM E 605 to report compliance with applicable building code and project specification requirements.
6. Perform field bond tests using the procedures of ASTM E736 to report compliance with building code and project specification requirements. Frequency of testing will be in accordance with applicable building code and project specification requirements.
7. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies.



F. Asphalt Paving:

1. Observe proofrolling of subgrades, and suggest and observe corrective action at excessively soft areas prior to placement of subbase course.
2. Observe placement of subbase course and perform appropriate in-place density tests as directed by specifications.
3. Observe placement, rolling operations and temperature of paving mixture at time of placement.
4. Perform appropriate measurements and tests to document asphalt density.
5. Provide documentation of events in the field and notify the appropriate persons upon recognition of deficiencies

## ADD. ALT/OPTIONAL SERVICES

### A. Self-Adhering Waterproofing:

1. Storage conditions of moisture or UV-sensitive materials.
2. Condition and preparation of the substrate prior to and during the waterproofing work.
3. Application of surface conditioner or primer materials.
4. Installation of the waterproofing membrane.
5. Installation of penetration flashings and terminations
6. Installation of drainage composite and/or protection layer
7. Installation of waterproofing associated accessories; and
8. State of the waterproofing prior to backfill placement.

### B. Foundation Drainage Assemblies:

1. The installation of filter fabric to isolate aggregate and soil.
2. The installation of perforated piping and clean-out devices, and open-graded aggregate.
3. The installation of the vapor barrier components at slab-on-grade areas.

### C. Exterior Wall Assemblies:

1. Installation of masonry back-up wall components.
2. Installation of air, vapor and/or thermal barriers
3. Installation and securement of building insulation.
4. Installation of the through-wall flashings.
5. Installation of weeps or other drainage devices.
6. Installation of masonry/wall panel assemblies at the location of the through-wall flashings with regard to integration with adjacent assemblies (i.e. brick tie penetrations through weather-resistive barrier); however, alignment and aesthetic characteristics are not included.
7. Installation of joint sealants; and
8. Items that may affect the long-term serviceability or durability of the exterior wall assemblies.

### D. Aluminium-Framed Entrances and Storefronts, Windows and all Glass Entrances:

1. Condition of the framing and substrate prior to and during installation.
2. Examination of fenestrations to document compliance with contract documents and shop drawings.
3. Installation of aluminum and glass entrances, storefronts and window assemblies with regard to structural elements.
4. Installation of sub-sill and flashing components.
5. Installation of end dams, gaskets, insulating glass units and setting blocks.
6. Installation of joint sealants, to include surface preparation, backer rod and primer application, sealant application and tooling.

### E. Roofing:

1. Storage conditions of moisture or UV-sensitive materials.
2. Condition and preparation of the substrate prior to, and during, the roofing work.
3. Installation of the roof covering, to include thickness, temperature and other items which may jeopardize the long-term water tightness of the roof covering.
4. Installation of penetration flashings and terminations.
5. Installation of metal work and other roofing associated accessories.

**F. Building Envelope Field Testing Services:****1. Perform Field Water Penetration and Air Infiltration Testing****a. Aluminum Windows and Terrace Doors**

Random testing will be performed at approximately 2% of aluminum window and terrace door assemblies to verify the effectiveness of the properly installed assemblies to exclude water penetration and air infiltration from the interior of the building. This testing shall be performed in such a manner as to include aluminum and glass exterior wall assemblies, as well as the perimeter joint sealant and a certain distance beyond the perimeter joint sealant to include the termination of abutting cladding within the test area, in accordance with AAMA 502 "Voluntary Specification for Field Testing of Newly Installed Fenestration Products" using test method B. This testing shall be performed in accordance with ASTM E 1105-00 (2008) "Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference" and ASTM E 783-02 "Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors".

**b. Aluminum-Framed Entrances and Storefronts**

Random testing of aluminum-framed entrances and storefronts shall be performed in accordance with AAMA 503-08 "Voluntary Specification for Field Testing of Newly Installed Storefronts, Curtain Walls and Sloped Glazing Systems".

**c. We will provide a report of our observations and field testing. The report will provide a description of exterior wall assemblies and materials, field testing procedures, and resulting conditions observed. The report will also include recommendations for repairs or corrective action and any suggested modifications to the existing assemblies to provide an appropriate building enclosure, consistent with the intent of the building design. Photographic documentation of our observations will also be presented. If unusual conditions are observed, or if further investigations appear warranted, this recommendation will be provided in our report.****2. Witness Field Water Penetration and Air Infiltration Testing Performed by Contractor****a. Field water penetration and air infiltration testing performed by the Contractor will be observed to evaluate the performance of water penetration and air infiltration testing performed by the Contractor will be observed to evaluate the performance of the exterior wall components and compliance with the project requirements. A field test witnessing narrative will be prepared and provide a description of the exterior wall assemblies and materials, test procedures, and the test results observed. The report will also include recommendations for repairs or corrective action and any suggested modifications to the existing assemblies to provide an appropriate building enclosure, consistent with the intent of the building design. Photographic documentation of our observations will also be presented. If unusual conditions are observed, or if further investigations appear warranted, this recommendation will be provided in our report.****G. Stormwater Pollution Prevention Plan: (If Required)**

- 1. Conduct a site reconnaissance by personnel approved by the Virginia Department of Conservation and Recreation (DCR) once every week and once after every storm rain event to inspect the construction entrance, wash and storage areas, erosion and sediment controls, and other portions of the construction site in accordance with current VSMP regulations.**
- 2. Document any deficiencies in the onsite SWPPP book to be housed onsite and made available during construction hours by the contractor.**
- 3. Evaluate areas of concern noted during previous inspections and documenting their compliance with current VSMP regulations; and.**
- 4. If necessary, an environmental scientist will attend the pre-construction meeting to discuss any questions or concerns regarding the SWPPP.**

## APPENDIX II – PROJECT UNIT RATES

### FIELD SERVICES

### UNIT RATE

1. Engineering Technician (Soils, Foundations)	\$ 42.00/hour
2. Engineering Technician (Concrete)	\$ 37.00/hour
3. QAO Inspector/Facilities Technician	\$ 75.00/hour
4. Structural Steel Inspector	\$ 75.00/hour

### ENGINEERING/ADMINISTRATIVE SERVICES

1. Engineering Services for Report Writing/On Site Services	\$ 115.00/hour
2. Secretary	<b>No Charge</b>

### LABORATORY AND RELATED SERVICES

1. Compressive strength testing, curing & disposal of concrete cylinders	\$ 11.00/each
2. Compressive strength testing of 3 ½ x3 ½ x7 inch grout prisms	\$ 16.00/each
3. Compressive strength testing of 3 x6 inch mortar cylinders	\$ 16.00/each
4. Standard Proctor Moisture Density Relationships ASTM D-698	\$ 95.00/each
5. Atterberg Limits Tests (ASTM D698)	\$ 65.00/each
6. Washed Sieve Analyses (ASTM D1140)	\$ 60.00/each
7. Moisture Content (ASTM D2216)	\$ 8.00/each
8. CBR Tests ASTM D1883 (w/o Proctor)	\$ 180.00/each
9. Fireproofing Density Tests	\$ 35.00/each

ECS field services will be as **on site time only with no charge for travel time and mileage**. There will be no minimum charge for field related services. Our unit rates are based on a normal 8 hour work day, Monday through Friday, between normal business hours of 7:00 a.m. to 4:00 p.m. Overtime beyond 40 hours/week, and on Holidays will be invoiced at a rate of 1.5 times the normal hourly rate indicated above. Scheduling should occur prior to 3:00 p.m. on the day before services are required. Same-day scheduling for technician services may result in non-coverage of such inspections.

A 50-pound sample of each proposed fill material must be received in our laboratory (5) calendar days prior to use in order to perform the necessary laboratory testing. Samples requiring result turnaround of less than 5 days cannot be guaranteed.

### APPENDIX III – ESTIMATED COST

**FIELD SERVICES (Special Inspections for 24 weeks)**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
<b><u>Certified Engineering Technician: Soils &amp; Concrete</u></b>					
<i>Building Foundations, Concrete and CMU Walls, Slab on Grade, Sitework - assume 12 weeks</i>	4	5	12	\$42.00	\$10,080.00
<i>Building Foundations, Concrete and CMU Walls, Slab on Grade, Sitework - assume 12 weeks</i>	4	5	12	\$37.00	\$8,880.00
<b><u>Certified Engineering Technician: Concrete &amp; Soils</u></b>					
<i>Walls, Slabs on Metal Deck and Sitework - assume 4 weeks</i>	4	4	4	\$42.00	\$2,688.00
<i>Walls, Slabs on Metal Deck and Sitework - assume 4 weeks</i>	4	3	4	\$37.00	\$1,776.00
<b><u>Certified Structural Steel Technician:</u></b>					
<i>Building - Bolted &amp; Welded Connections for Columns, Beams, Operable Partitions, Stairs, Decking, CFS Roof Trusses, RTUs Framing &amp; Misc. Metals at Facades etc.</i>	4	2	5	\$75.00	\$3,000.00
<b><u>Certified Fireproofing Technician:</u></b> <i>Assume 16 No. 4-Hour visits for 5 weeks</i>	4		16	\$75.00	\$4,800.00
<b>SUBTOTAL:</b>					<b>\$31,224.00</b>

**ENGINEERING & SUPPORT**

	HOURS/DAY	DAYS/WEEK	WEEKS/UNITS	RATE	TOTAL
Engineering Services for Report Writing (CMT)	1	5	22	\$115.00	\$12,650.00
Engineering Services for Report Writing (Fireproofing)			16	\$115.00	\$1,840.00
Engineering Services Allowance for Preconstruction Meeting and Final Reports of Special Inspections: <i>Assume - 8 hours</i>			8	\$115.00	\$920.00
<b>SUBTOTAL:</b>					<b>\$15,410.00</b>

**CONCRETE, MASONRY, FIREPROOFING TESTING**

	CYLS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Concrete Cylinders - Building	9	4	14	\$11.00	\$5,544.00
Grout Prisms	3	2	3	\$16.00	\$288.00
Mortar Cylinders	3	2	3	\$16.00	\$288.00
Fireproofing Adhesion/Cohesion Testing:	No.----->		30	\$35.88	\$1,076.40
Fireproofing Density Testing:	No.----->		30	\$35.00	\$1,050.00
<b>SUBTOTAL:</b>					<b>\$8,246.40</b>

**SOILS LABORATORY TESTING**

	UNITS	RATE	TOTAL
Proctor Tests - assume 1 test	1	\$95.00	\$95.00
Atterberg Tests - assume 1 test	1	\$65.00	\$65.00
Sieve Analysis - assume 1 test	1	\$60.00	\$60.00
<b>SUBTOTAL:</b>			<b>\$220.00</b>

**SUBTOTAL - CMOT Services (Special Inspections): \$55,100.40**

**FIELD SERVICES (Sitework for 11 weeks)**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
<b>Certified Engineering Technician: Soils</b>					
<i>Initial Sitework - SOE assume Part Time for 2 weeks</i>	4	5	2	\$42.00	\$1,680.00
<i>Initial Sitework - Utilities, underground SWM system construction, rough grading - assume Full Time for 4 weeks</i>	8	5	4	\$42.00	\$6,720.00
<b>Certified Engineering Technician: Soils &amp; Concrete</b>					
<i>Fine Grading and Pavement - assume 10 days</i>	6	5	2	\$42.00	\$2,520.00
<i>Hardscapes - dumpster enclosure, bollards, light pole bases, security gates, walls - assume 12 days</i>	6	4	3	\$37.00	\$2,664.00
<b>SUBTOTAL:</b>					<b>\$13,584.00</b>

**ENGINEERING & SUPPORT**

	HOURS/DAY	DAYS/WEEK	WEEKS/UNITS	RATE	TOTAL
Engineering Services for Report Writing	1	5	11	\$115.00	\$6,325.00
Engineering Services Allowance for <i>Meetings, Site and DEQ Certification - assume 9 hours</i>			9	\$115.00	\$1,035.00
<b>SUBTOTAL:</b>					<b>\$7,360.00</b>

**CONCRETE LABORATORY TESTING**

	CYLS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Concrete Cylinders - C&G, Sidewalk, Bollards, Security Gates, Site Walls, Lightpole Bases	9	4	3	\$11.00	\$1,188.00
<b>SUBTOTAL:</b>					<b>\$1,188.00</b>

**SOILS LABORATORY TESTING**

	UNITS	RATE	TOTAL
Proctor Tests - assume 3	3	\$95.00	\$285.00
Atterberg Tests - assume 3	3	\$65.00	\$195.00
Sieve Analysis - assume 3	3	\$60.00	\$180.00
Moisture Test -assume 3	3	\$8.00	\$24.00
CBR Tests - assume 2	2	\$180.00	\$360.00
<b>SUBTOTAL:</b>			<b>\$1,044.00</b>

**SUBTOTAL - CMOT Services (Sitework): \$23,176.00**

**SPECIAL INSPECTIONS + SITEWORK (35 weeks): \$78,276.40**

The estimated cost has been prepared for your budgeting purposes based upon the assumed quantities and time frames detailed above. A construction schedule was not available; cost estimate is based on the provided project drawings and the assumed 8-Month (35-week) time period. ECS recommends the opportunity to revise the cost estimate once a construction schedule is available. There will be no minimum charge for field services. Actual costs may be greater or less than the estimate based upon actual quantities that will be calculated using the enclosed schedule of unit rates.

ADD. ALT/OPTIONAL SERVICES – ESTIMATED COST**FIELD SERVICES (Building Envelope Services)**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Certified Waterproofing Technician for Quality Assurance Observation Services:					
<i>Below-Grade Waterproofing/Underslab Drainage - Assume 6 Weeks</i>	4	3	6	\$75.00	\$5,400.00
<i>Exterior Wall Assemblies - Assume 12 Weeks</i>	4	2	12	\$75.00	\$7,200.00
<i>Roofing (Modified Bitumen/Standing Seam Metal) - Assume 6 Weeks</i>	4	3	12	\$75.00	\$10,800.00
				<b>SUBTOTAL:</b>	<b>\$23,400.00</b>

**ENGINEERING & SUPPORT**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Engineering Services for Report Writing: (78 Total Reports)	1	3	26	\$115.00	\$8,970.00
Engineering Services for Report Writing Preconstruction Meetings Allowance (4 No.).	4	1	4	\$115.00	\$1,840.00
Engineering Services for Report Writing Additional Project Management Allowance				\$115.00	\$0.00
				<b>SUBTOTAL:</b>	<b>\$10,810.00</b>
				<b>SUBTOTAL - CMOT Services (Building Envelope Services):</b>	<b>\$34,210.00</b>

**FIELD SERVICES (Add.Alt. Services) SWPPP Inspections**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Certified Stormwater/ESC Inspector:					
<i>Twice-Weekly SWPPP Inspections</i>	4	2	11	\$54.12	\$4,762.56
				<b>SUBTOTAL:</b>	<b>\$4,762.56</b>

**ENGINEERING & SUPPORT**

	HOURS/DAY	DAYS/WEEK	WEEKS	RATE	TOTAL
Engineering Services for Report Writing	1	2	11	\$115.00	\$2,530.00
				<b>SUBTOTAL:</b>	<b>\$2,530.00</b>
				<b>SUBTOTAL - Field Services (Add. Alt. Services) SWPPP Inspections:</b>	<b>\$7,292.56</b>
				<b>ADD-ALT TOTAL</b>	<b>\$7,292.56</b>



**APPENDIX IV – PROPOSAL ACCEPTANCE**

ECS Mid-Atlantic, LLC

Proposal No.: 62566-CP  
Scope of Work: Construction Materials Observation and Testing Services  
Location: Town of Vienna Police Station, Vienna, Fairfax County, Virginia

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

Please complete and return this page 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: \_\_\_\_\_

E-mail Address of Contact Person: \_\_\_\_\_

Party Responsible for Payment: \_\_\_\_\_

Company Name: \_\_\_\_\_

Person/Title \_\_\_\_\_

Department: \_\_\_\_\_

Billing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

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:

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

Please indicate any additional 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: Town of Vienna



## ECS MID-ATLANTIC, LLC TERMS AND CONDITIONS OF SERVICE

The professional services ("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 and shall form the Agreement between ECS and CLIENT.

**1.0 INDEPENDENT CONSULTANT STATUS** - ECS shall serve as an independent professional consultant to CLIENT for Services on the Project 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, agents, contractors and consultants ("Contractors"). 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 or any ECS report, opinion, plan or other document prepared by ECS shall constitute a warranty or guarantee 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 and/or CLIENT'S contractors and consultants. 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 Services requires ECS to penetrate a surface, CLIENT shall furnish and/or shall direct CLIENT'S or CLIENT'S Contractors 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 or fee schedule to reflect any 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 Contractors, 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 agents, subcontractors and/or subconsultants ("Subconsultants"), 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 and its Subconsultants 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 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' Subconsultant'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 first 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 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 its 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 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 Without ECS' prior written consent, CLIENT agrees to not use ECS' Documents of Service for the Project if the Project is subsequently modified in scope, structure or purpose. Any reuse without ECS' written consent shall be at CLIENT'S sole risk and without liability to ECS or its Subconsultants. 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 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, fall protection, 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 of CLIENT'S Contractors or any of their subcontractors.
- 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 Contractors. If CLIENT elects to retain ECS on a part-time or on-call basis for any aspect of construction monitoring and/or testing, CLIENT accepts the risk 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 in exchange for CLIENT'S receipt of an immediate cost savings. Unless the CLIENT can show that ECS' errors or omissions are 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 or on-call 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 or on-call 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 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 may 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 date. 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 and CLIENT'S 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 \$50,000, 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 to 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 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.

21.2 In the event of any dispute or claim between CLIENT and ECS arising out of 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 calendar (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, 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.

30.2 These Terms together with the Proposal, including all exhibits, appendixes, and other documents appended to it, constitute the entire agreement between CLIENT and ECS ("Agreement"). 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 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 these Terms and their agreement to be fully bound to them. 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.