



DEPARTMENT OF MANAGEMENT AND FINANCE
Office of the Purchasing Agent

2100 Clarendon Blvd., Suite 501 Arlington, VA 22201
TEL 703-228-3410 FAX 703-228-3409 EMAIL purchasing@arlingtonva.us www.arlingtonva.us

October 14, 2019

VIA E-MAIL AND US MAIL


Mr. Jose Bustamante, Vice-President
STV Incorporated
2701 Prosperity Avenue
Suite 305
Fairfax, Virginia 22031

**RE: Arlington County Government Contract No. 18-089-9, entitled, "Ballston-MU
Metrorail Station West Entrance Design/Engineering Services", Task Order No. 1**

Dear Mr. Bustamante:



Enclosed for your records is the fully executed Task Order under Contract No. 18-089-9 in the Not-to-Exceed amount of \$1,827,904.04. Should you have any questions please feel free to contact me at 703-228-3424.

Sincerely,


Shirley Diamond
Procurement Officer

Enclosure

**ARLINGTON COUNTY GOVERNMENT
OFFICE OF THE PURCHASING AGENT
TASK ORDER**

Arlington County Government Department of Management and Finance Office of the Purchasing Agent 2100 Clarendon Blvd. Arlington, Virginia 22201 Telephone: 703-228-3481	1A. CONTRACT NUMBER	1B. DATED	
	18-089-9	June 10, 2018	
	2A. TASK ORDER NO.	2B. EFFECTIVE DATE	
	One (001)	Upon Full Execution of the Task Order	
3. TYPE OF MODIFICATION		4. NAME, ADDRESS AND PHONE NUMBER OF CONTRACTOR	
<input type="checkbox"/> THIS CHANGE ORDER MAKES CHANGES DESCRIBED IN BLOCK 6, AND ARE MADE IN ORDER IN BLOCK 1A. <input type="checkbox"/> CONTRACT OR ORDER NUMBER IN BLOCK 1A IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES DESCRIBED IN BLOCK 6. <input checked="" type="checkbox"/> THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO AS SET FORTH IN BLOCK 6 BELOW. <input type="checkbox"/> OTHER (Please Specify)		STV Incorporated 2701 Prosperity Avenue Suite 305 Fairfax, Virginia 22031 Telephone: 571-633-2220	
IMPORTANT:		5A. TASK ORDER AMOUNT	5B. REVISED ORDER AMOUNT
Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return it to this office.		\$1,827,904.04	N/A
5C. TOTAL -- ORDERS & MODS			
N/A			
6. DESCRIPTION OF MODIFICATION			
Arlington County Contract No. 18-089-9, entitled, "Ballston-MU Metrorail Station West Entrance Design/Engineering Services", Task Order No. One (001);			
<ol style="list-style-type: none"> 1. The Contractor shall update the previously prepared Thirty-Five Percent (35%) Design Documents in accordance with Tasks 1 through 6 and the attached Scope of Work dated August 16, 2019 and STV fee proposal letter dated October 3, 2019; 2. The Task Order Amount shall be a Not-to-Exceed \$1,827,904.04; 3. This Task Order shall also constitute the Notice to Proceed upon by the Contractor and Procurement Officer; 4. The Period of Performance shall not exceed Two Hundred (200) consecutive calendar days from Item No. 3, 			
4. All other terms and conditions of the Contract and Task Order remain unchanged.			
Except as provided herein, all terms and conditions of the document referenced in Block 1A, as heretofore changed, remain unchanged and in full force and effect.			
7A. NAME AND TITLE OF CONTRACTOR		8A. NAME OF PROCUREMENT OFFICER	
Jose Bustamante, Vice-President		Shirley Diamond	
7B. SIGNATURE	7C. DATE	8B. SIGNATURE	8C. DATE
	10/14/19		10-14-19



October 3, 2019

Michelle Chaney
Contracts Administrator
Arlington County Division of Transportation
2100 Clarendon Blvd., Suite 900
Arlington, VA 22201

Reference: Ballston-MU Metrorail Station West Entrance: Design and Engineering Services to Update Previously Developed 35% Design Documents – Task Order #1 under Agreement #18-089-9.

Dear Ms. Chaney:

Thank you for the opportunity to provide a fee for the scope for the Ballston-MU Metrorail Station West Entrance: Design and Engineering Services to Update Previously Developed 35% Design Documents – Task Order #1 under Agreement #18-089-9. We offer the following staff to perform the work and have updated our fee and assumptions.

Alfonso Ronca, P.E. is the proposed Task/Project Manager and will oversee all tasks under this assignment. Alfonso brings more than 25 years of experience with transportation projects in the Mid-Atlantic region and has overseen roadway, bridge, rail, and transit projects in the District of Columbia, Maryland, Virginia, and West Virginia. Alfonso's experience includes serving as the senior project engineer/utility coordinator for the WMATA Silver Line, as well as the WMATA Blue Line extension. Alfonso's experience as a Construction Manager will be of particular benefit on this project with constructability reviews and addressing contractor concerns through the procurement process.

Lara Hegler, P.E. will be serving as the QA/QC manager and ensuring that the project has the resources needed. She is the director of operations for STV's Virginia and D.C. with more than 25 years of experience managing transportation projects in Virginia, Maryland, and the District of Columbia. Her WMATA experience includes serving as the task manager for the WMATA/DDOT K Street Transitway Study and most recently served as the QA/QC manager for the award winning GRTC Pulse BRT project.

Laura Jeffords, AIA, NCARB will serve as the Lead Architect and has over 20 years of experience providing design and construction-phase services for a variety of facilities, primarily in the Washington, D.C. area. She designed the lower-level station access and elevator shafts for WMATA Rosslyn Metro Station in Arlington, VA.

Albert Ducker, P.E., LEED® AP BD+C will serve as the Lead Structural Engineer with more than 40 years of experience in structural analysis and design for concrete, steel, aluminum, and timber structures, including dynamic analysis. He is adept at site engineering, including location and grading, drainage, sediment and erosion control, and road layout. Al has served as the lead structural engineer for numerous WMATA projects, including the Navy Yard Metrorail Station Entrance Improvements, MetroMatters Brentwood Shop and Yard Design-Build, and Ballston-MU Station West End Improvements Design-Build, among others.

Michael Randolph, P.E. will serve as Lead Civil Engineer. Mike possesses more than 15 years of experience gained during highway and rail projects in the District of Columbia, Maryland and Virginia. He is currently serving as the project manager for the WMATA Communications and Outreach for Platform Reconstruction project and the I-395 Capitol Crossing Project in the District of Columbia. Additionally, Mike has been the lead civil for a variety of WMATA feasibility studies.

Monica Barrow will lead the development of the Categorical Exclusion (CE) and has 30 years of experience in transportation planning and project management, including significant experience in capital planning for rail and transit programs. Most recently, Monica served as the VDRPT High-Speed Rail D.C. to Richmond Tier II EIS Lead.

General Assumptions

1. It is assumed that each task will not be a stand-alone lump sum fee but that the total fee in its entirety will be allowed to be utilized for all Tasks 1-6. The use of labor categories is only provided to show the County how the lump sum fee was developed.
2. The County will be responsible for all grant reporting to other outside agencies.
3. The County will provide any existing agreements or applicable portions of agreements with WMATA, VDRPT, VDOT and others, as it directly relates to the scope of the work required within this task order.
4. There is no DBE/SWAM goal for this task assignment.
5. Subconsultants under this contract that are not involved in this task assignment will not be required to revise their insurance requirements as detailed in the scope of work documents.
6. We have assumed 200 Calendar Day schedule encompasses Task 1-5 and Task 6 Development of Bridging Documents. The Clarifications, Pre-Proposal Meeting, Revising Documents and other procurement activities will fall outside of the 200 Calendar Day schedule
7. The fee estimate assumes that we will have up to three submissions (two draft and one final submission). At each submission, we will address all comments received at one time to streamline resolution.
8. Due to the nature of this specific tasks, STV reserves the right to engage specialty firms to assist in the plans and specifications, which will be inclusive of the total fee.
9. For access to WMATA Property, STV will provide a Site-Specific Work Plan (SSWP) to the client. The client or client representative will be responsible for submitting the SSWP to WMATA and arranging site access for STV. STV will not be responsible for delays associated with entry or access to the property. STV will attempt to minimize site access trips, as appropriate.
10. Conditions not apparent and additional scope of work not included at the time this proposal was prepared may change the scope of work and cost assumptions.

Task 1. Project Management and Administration

1. Each month, the proposed task manager will provide one (1) invoice and one (1) invoice report that will capture all the activities and efforts for the scope tasks 1 through 6. The invoice will be invoiced as a percentage complete for each scope task. The invoice report will include the information detailed in the scope of work under Task 1.
2. We propose to utilize a combination of in-person and virtual meetings (using Skype) for the 15 of the bi-weekly meetings. We assume that half of the meeting (including the kick off meeting) will be in person meeting at the County's office. Remote staff will join via Skype.

Task 2 – Data Collection, Site Investigation, and Property and Utility Survey

1. Arlington County will provide project survey control or datum if possible (WMATA LDP vs. Arlington County etc.).
2. We have assumed a Quality Level B for subsurface utility investigation.

Task 3. Technical Analysis

1. We will perform an Egress Analysis and prepare a study report for the WMATA Ballston-MU Station. These analyses will be performed in accordance with WMATA and the most recent National Fire Protection Association (NFPA) 130 (2017 edition) standards.

2. We will update the 2006 Station Exiting Report using a combination of static spreadsheet analyses and pedestrian simulation modeling. Static spreadsheet methodology will follow NFPA 130 procedures; NFPA 130 (Section 5.3) gives a prescriptive calculation procedure to determine the station exiting time using mathematical formulae for uniform flow rates and a specified moving speed for all people. Based on Dr. Fruin's Pedestrian Planning and Design, NFPA 130 uses conservative movement speeds based on passenger behavior in highly crowded situations.
3. Computer simulation software provides a more sophisticated method of calculating exiting times than NFPA 130 procedures. The equivalency Section 1.4 of NFPA 130 states that the standard is not "intended to prevent or discourage the use of new methods." The Ballston-MU Station analysis will also use STEPS computer simulation software to estimate the egress time of the station.
4. We will use STEPS (Simulation of Transient Evacuation and Pedestrian movements) for modeling passenger movements through the station. Within STEPS, a 3D model is comprised of Planes which are tessellated into a grid of cells. One cell can only be occupied by a single person at a time. STEPS adopts a flexible grid-based approach to defining the space in which people move and environment they must navigate.
5. For the Egress Analysis, we will provide the following
 - a. Perform NFPA 130 analyses to determine egress travel times off of the platform and to a point of safety for existing conditions (weekday AM and PM peak periods) and for one future Build condition (weekday AM and PM peak periods).
 - i. The egress time of the station is strongly dependent on the number of passengers to be evacuated. Recent and relevant passenger data at the Ballston-MU Station will be requested from WMATA. For the purposes of this estimate, no additional data collection is included.
 - b. We will develop a passenger simulation model for the Ballston-MU Station for existing conditions and the future Build condition for the weekday AM and PM peak periods.
 - i. In order for the pedestrian simulation to be performed for the existing station configuration, station geometry should be provided in 2D CAD format, which can then be inputted into the STEPS software model.
 - ii. WMATA will provide us with the train schedule and average observed headways during the AM and PM peak hours, and clarification on whether the train service to the station operates using six- or eight-car train consists. Train car length and car door configuration (in CAD or PDF format), in addition to crush-loaded capacity of each individual train car, would also be provided to our team.
 - iii. For the future West Concourse Addition condition, WMATA will provide our team with the future Build analysis year (i.e., concourse opening year or estimated time of completion plus ten years) and approximate ridership growth rate per year, in order to project existing ridership volumes to the future Build Year.
 - iv. The effects of smoke and high temperatures on passenger movement will not be included in the model. Station and tunnel ventilation systems are assumed to maintain clear paths during the evacuation period.
 - c. We will summarize the findings of the static NFPA 130 spreadsheet analyses and pedestrian simulation modeling analyses for existing conditions and the proposed future West Concourse Addition condition for the AM and PM peak periods in a technical report, detailing:
 - i. platform clearance times off of the platform
 - ii. passenger clearance times to a point of safety
 - iii. pedestrian queue lengths

6. Note that the focus of the pedestrian simulation effort will be passenger emergency egress movements; however, the STEPS model does have the flexibility to assess pedestrian operations during normal conditions and could be performed if requested by WMATA, as an additional effort outside of this scope.
7. The CE will be a standalone document that will feed into an overall Technical Document and all technical documents will be provided in printable pdf versions. A limited distribution of up to ten (10) hard copies of the final document will be provided.
8. STV will prepare a NEPA CE Worksheet with documentation (attachments) that describes the project and its context, as well as provides evidence to support the conclusion that the project would not result in a significant adverse impact. In addition to descriptive information that will be attached, certain information will be developed through tailored analyses expected to be of a qualitative nature; areas of concern include the potential for construction-period effects related to hazardous and contaminated materials, noise, air quality, and traffic/transportation and pedestrians. Data will also be provided to describe potential Environmental Justice communities in the area. It is assumed that no Section 4(f) or Section 106 resources are located within the area of potential effect, and so a cultural resources assessment is not required, and FTA will make a determination of "No Effect/No Historic Properties."
9. Attendance at public meetings is excluded.

Task 4. Evaluation and Update of previous developed Design Documents

1. The existing 4420 North (N.) Fairfax Drive Building footprint will not change.
2. The Ballston-MU West Entrance Project Planning Study from 2010, assumed that the previous design by the developer would move forward with demolition of the existing structure at 4420 Fairfax Drive and the reconstruction of a new office building. The graphic on Page 1-3 of this study shows a structural column that was required at the time by the developer. Our design will proceed with the assumption that this column is still needed. STV will plan to incorporate the design for the foundation of this column (to be provided by others) into our updated plans. We assume that the developer or the developer's representative will be in attendance in our design meetings to provide periodic updates on the development of their foundation design and other work. We assume that the developer's plans will be provided as a reference file in a format that is compatible with Version 16 of AUTOCADD. STV will not design any of the foundation or structures for the development at 4420 N. Fairfax Drive or perform any calculation reviews of their structures within the scope of this task order. It is anticipated that a design-builder may have to further coordinate with the developer, which may impact costs and schedule and method of construction.
3. The design approach and methods of constructing the station access improvements need to be reaffirmed with WMATA. Our assumption for our fee assumes that WMATA will abandon the space at the end of the existing platform and the tunnel structure and allow a direct connection to the existing WMATA station structure as originally planned.
4. Additionally, the method of construction for the building at 4420 N. Fairfax Drive in the approved site plan, is that these station access improvements are to occur simultaneously with the construction of the building. Our design and specifications will be based on one approach for construction for the western entrance to the Ballston Station. It will either 1) proceed to construction in advance of the building and accommodate the existing structure or 2) proceed simultaneously with the construction of the building. This will be decided over the course of the design meetings with the developer and the client.
5. The County assumes that stairs will be used from mezzanine to platform as previously approved by WMATA. This will be confirmed with WMATA at the beginning stages of the design update - if this changes, then a Contract Modification will be issued to address changes to the scope of work and fee proposal.
6. Hydraulic elevators will be used for basis of design, including utilizing a hole less hydraulic approach within the station.

7. STV will accommodate the updated design within the existing easement as shown on the approved site plan for 4420 N. Fairfax Drive. STV does not assure that WMATA will accept waivers of requirements but we will work with the client and WMATA to design within the space limits that are currently available. Additional easements are excluded from this task order.
8. Fire Protection will be included at escalator truss, Area of Refuge, Restrooms, Electrical Room and Elevator Machine Room. Fire Protection will be provided in Station Entry mezzanine and fare entry area with a dry standpipe.
9. Conceptual MOT and sequence of construction drawings will be provided; however, no traffic or pedestrian operations analyses will be conducted.
10. Signage plans and details are excluded. The bridging documents will include specifications and standard drawings and contractor is responsible for final signing plans.
11. New technical specifications will be provided by WMATA at the notice to proceed (NTP) to the design team. All technical specifications that are required outside of the standard WMATA specifications will be developed as part of the 35% design package.
12. It is assumed that any 35% comments from the 2006 design from WMATA will not be addressed; however, we will address any comments received on an updated 35% design package. We further recommend that over the shoulder discourse occur at a kick off meeting with WMATA's design review team and throughout the finalization of the 35% design package.
13. All design drawings will be prepared in AUTOCADD version 2016. A REVIT model is excluded for the design.
14. Up to 5 renderings will be provided utilizing a three-dimensional (3-D) software package.
15. Station power will need to be re-established with new connection points.
16. The elevator headhouse will be a stand-alone building on a plaza vs integral to the building.
17. The current egress area to the western metro entrance from street level is described as "the shell", which was previously designed and constructed. As constructed, the shell will not accommodate the design of two escalators and 10'-0" stairs per the current WMATA standards. However, it is assumed that the shell will not be modified and/or redesigned to accommodate the current WMATA standards. STV will work with the client and WMATA to accommodate an egress area that is acceptable to WMATA and the client.
18. It is assumed that the escalators will require a separate equipment room, in lieu of providing their equipment under the escalators. We understand this to be a new WMATA requirement.
19. The County will provide the most recent site plan amendment and/or agreement with Washington Capital Partners, LLC for 4420 N. Fairfax Drive.
20. It is assumed that no VDOT permits will be required for the work required in this task order.

Task 5: Construction Schedule and Cost Estimate

1. The Project Schedule will be performed in Primavera P6. If required, it will be converted to a Microsoft Project schedule; however, MS Project durations and dates may differ slightly than those reported on in Primavera P6.
2. Project Schedule will be accompanied by a narrative which will provide detailed information regarding the formation of the schedule including resource/crew assumptions, time of year restrictions, adverse weather considerations, and a listing of major risks.
3. A draft version of the Project Schedule will be provided to the county for comment prior to producing a final version.
4. We will solicit quotes for the material items to confirm market values as part of the cost estimating process.

Task 6: Bridging Documents and Procurement Services

1. The Bridging Documents will include the following items:
 - a. Risk Register development, risk mitigation and assignment
 - b. Procurement schedule development
 - c. Development of incentives, disincentives, LD's
 - d. Identify third parties and need for third party agreements;
 - e. Coordination with third parties for document development
 - f. Development and negotiation of Third Party Agreements are excluded
2. We assume using an Arlington County document as template for the following:
 - a. RFQ Development
 - b. RFP
 - c. General Provisions
 - d. Standard Provisions
 - e. Special Provisions
 - f. Concept Plans
 - g. Reference Information
 - h. Proposal Forms
3. The Pre-Bid notification will be based on an Arlington County template
4. The Pre-Bid meeting and presentation will be based on an Arlington County template.
5. We propose no Alternate Technical Concepts will be evaluated.
6. Proposal Evaluations with Arlington County's input will include the following:
 - a. Overall Administration
 - b. Responsiveness reviews
 - c. SOQ evaluations and recommendations
 - d. Technical proposal evaluations and recommendations
 - e. Price proposal evaluations and recommendations
 - f. Development of conformed documents, including successful proposal

Optional Services: Safety and Security

1. If these Optional Services are not requested from Arlington County, STV will require the safety and security information be provided to the design team within the first 60 days from NTP, otherwise, we will not be responsible for rework or an extension of the schedule that may be needed to address safety considerations later.
2. STV safety and security staff will participate in meetings during the duration of the project schedule to collaborate, coordinate and update the status of project Security efforts with the Project Team and client, as necessary.
3. STV will perform a safety and security review of project documents previously developed in 2006 to understand the work and what requires updating to meet the latest Washington Metropolitan Area Transit Authority requirements for safety and security.
4. Any existing safety and security plans for the current WMATA Ballston Station entrance will be reviewed.
5. STV will perform a preliminary threat and vulnerability assessment (TVA) for the previously developed 35% design of the project. The TVA will identify threats, vulnerabilities and develop recommended mitigation measures for the successful bidder to use during the design and the construction phases of the project.
6. For the effort, STV will meet with and interview local and agency first responders to identify threats and capabilities, conduct a site visit to identify vulnerabilities, and develop the Preliminary TVA report to identify potential threats, vulnerabilities, and describe mitigation measures for the 35% design level. Arlington County project representatives will arrange for local and rail agency first responders to meet with STV.
7. STV will develop and submit one draft Preliminary TVA report for review and comments followed by the submission of one final Preliminary TVA report with the appropriate comments incorporated for approval.

8. STV will develop the Design Criteria Conformance Checklist based on the WMATA current Design Criteria Manual (DCM). The final Checklist will be used for the successful bidder to use as the baseline of the Design Criteria Conformance Checklist during the design phase of the project.
9. To make sure that the station design includes current WMATA design criteria for System Security requirement to the 35% design level, STV will review the 2006 station design and compare it to the current WMATA Design Criteria Manual (DCM). Where gaps are identified, STV will develop recommendations to bring the 2006 station design into compliance with the WMATA DCM System Security recommendations.
10. STV will develop and submit one draft Design Criteria Conformance Checklist for review and comments followed by the submission of one final Design Criteria Conformance Checklist with the appropriate comments incorporated for approval.
11. STV will develop associated security sections of bridging documents to support the project RFP development.
12. STV will develop and submit the safety and security sections of the draft bridging documents for review and comments followed by the submission of final bridging documents with the appropriate comments incorporated for approval.
13. STV will review, comment, and edit requests for proposal (RFP) and requests for information (RFI) to make sure of their applicability and adequacy for security by adding security language, regulations, and protocols that the contractor will be held to along with the appropriate submissions required.

Please note that after our discussion, it was decided to reduce cost and provide efficiencies, STV will perform most of the work under this task order assignment. Our revised fee to provide the scope for Tasks 1 through 6 is \$1,827,904.04 with optional services of \$172,860.24. We have enclosed our backup spreadsheets in pdf format for further discussion along with our subconsultant backup spreadsheets. As requested, we have provided a proposed schedule of work efforts.

Sincerely,



Jose Bustamante, P. E.
Vice President

cc: Cody Christensen (STV)
Alfonso Ronca (STV)
Kenex Sevilla (Arlington County)
Blanche (Bee) Buergler (Arlington County)
Lynn Rivers (Arlington County)
Pierre Holloman (Arlington County)



ESTIMATE OF PROFESSIONAL SERVICES SUMMARY PAGE

STV Proposal or Job Number: 0070826

Client Job Number: 18 088 9 Task 1

Project Description/Location: Boston Metro Station West Entrance 35% Design Documents

Client: Arlington County

Client Project Manager: Boo Buerger

Item	Wkst	Hours	Budgeted Costs	Budgeted Effort	Owner Dir. Costs	Subconsult.	Grand Total
Task 1: Project Management	A	1,032	\$ 205,448.92	\$ 205,448.00	\$ 478.00	\$ -	\$ 205,926.92
Task 2: Data Collection, Site Investigation, & Property & Utility Survey	B	712	128,880.20	128,880.20	-	12,244.88	141,131.14
Task 3: Technical Analysis	C	1,050	153,228.94	153,228.94	2,402.00	800.00	156,230.94
Task 4: Evaluation & Update of Previously Developed Documents	D	4,417	708,593.84	708,593.84	10,310.00	-	718,903.84
Task 5: Construction Schedule & Construction Cost Estimate	E	1,258	238,569.52	238,569.52	-	-	238,569.52
Task 6: Bridging Documents & Design-Build Procurement Services	F	2,248	367,141.68	367,141.68	-	-	367,141.68
GRAND TOTALS >		16,735	\$ 1,821,849.18	\$ 1,821,849.18	\$ 13,190.00	\$ 12,844.88	\$ 1,827,964.04
ADDITIONAL SERVICES OFFERED							
Safety and Security Documentation	G	802	168,888.24	168,888.24	3,972.00	-	172,860.24
GRAND TOTALS >		802	\$ 1,870,737.48	\$ 1,870,737.48	\$ 17,162.00	\$ 12,844.88	\$ 1,900,741.76

NOTES:

STV AMOUNT = \$ 3,802,978.56
STV PERCENTAGE = 98.56%

DBE AMOUNT = \$0.00
DBE PERCENTAGE =

SUBCONSULTANT AMOUNT = \$ 12,844.88
SUBCONSULTANT PERCENTAGE = 0.70%

ESTIMATED CONSTRUCTION COST =
DESIGN AS A PERCENT OF EST. CONSTRUCTION =

prepared by STV Incorporated

Project Manager: STV Incorporated



ESTIMATE OF PROFESSIONAL SERVICES

Task 1: Project Management

STV Proposal or Job Number: 0070826 Client Job Number 18-089-9 Task 1
 Project Description/Location: Ballston Metro Station West Entrance 35% Design Documents
 Client: Arlington County
 Design Assumptions: _____

Prepared By/Date: AR 09/18/19
 Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Project Management								-
General Project Management	30	300						330
Subconsultant Agreements		16					4	20
Kick-Off Meeting with County (1)	4	4	4				30	42
Attend Bi-weekly Dgn Coord Meetings w/ Cty/WMATA (up to 15)	16	30	30				30	106
Prepare Bi-weekly Meeting Agendas & Minutes (up to 15)		8					30	38
Prepare Monthly Invoice & Progress Report (7)		40					8	48
WMATA Safety Training & Contractor ID Pickup	8		8					16
Project Administration								-
General Project Coordination	30	200						230
Subconsultant Coordination		30						30
Prepare Project Management Plan (Draft & Final)	4	16						20
Staffing Plan		8						8
Work Schedule		8	24					32
QA/QC Manual		16	4				60	80
Maintain Electronic Project Record Files and Documents		30						30
Project Closeout	2	16	4					22
Manhour Totals:	94	722	74	0	0	0	162	1,092
Hourly Payroll Rate:	\$274.86	\$208.92	\$208.92	\$155.07	\$145.65	\$121.18	\$62.27	
Budgeted Costs:	\$25,821	\$150,940	\$15,460	\$0	\$0	\$0	\$13,328	

Other Direct Costs (ODC) Estimate:

	QNTY	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile	100	\$ 0.580	\$ 58.00	
Air Fare, per airline ticket		600.00	-	
Ground Transport, per vehicle-trip	20	14.00	280.00	BUDGETED COSTS: \$ 205,448.92
Meals, per person per day		30.00	-	EFFORT MULTIPLIER: 1.0000
Lodging, per room-night		200.00	-	BUDGETED EFFORT: \$ 205,448.92
Third-Party Photocopies, per copy		0.15	-	
Blackline or Blueline Prints, per sheet		0.80	-	
Bond or Vellum Reproductions, per sheet		1.25	-	ODC: \$ 478.00
Mylar Seals, per sheet		10.00	-	ODC MULTIPLIER: 1.00
Photographs, per roll (including development)		12.00	-	BUDGETED ODC: \$ 478.00
Overnight Postage, per package		20.00	-	
Parking	10	14.00	140.00	SUBCONSULTANTS: \$ -
OTHER:			-	SUB MULTIPLIER: 1.00
			\$ 478.00	BUDGETED SUBS: \$ -

SUBCONSULTANTS:

NAME / DESCRIPTION	ITEM COST	
NAME / DESCRIPTION	\$ -	
	-	
SUBTOTAL SUBS:	\$ -	TOTAL: \$ 205,926.92



ESTIMATE OF PROFESSIONAL SERVICES

Task 2: Data Collection, Site Investigation, & Property & Utility Survey

STV Proposal or Job Number: 0070826 **Client Job Number:** 18-089-9 Task 1
Project Description/Location: Ballston Metro Station West Entrance 35% Design Documents
Client: Arlington County
Design Assumptions:

Prepared By/Date: AR 09/18/19
Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Project Coordination/Administration								-
General Project Coordination			40	40				80
Prepare Site Specific Work Plan for WMATA			40	40				80
Sub Coordination			16					16
QA/QC	24		48					72
Collect & Review Existing Data, Design & Current Standards			4					4
Sub Deliverable Review (Topo, Prop Line & Util Loc. Survey)			4					4
Sub Deliverable Review (Subsurface Util Investigation Rpt)			4					4
Sub Deliverable Review (Star/Escalator Site Investigation Rpt)	2		16					18
Topo, Prop Line & Util Loc. Survey (See Sub-Timmons below)								-
Subsurface Utility Investigation Rpt (See Sub-Timmons below)								-
Existing Star/Escalator Site Investigation Report		2		40		16		58
Architectural Design								-
Documentation & Data Collection			4	8	4		8	24
WMATA Safety Training & Contractor ID Pickup			8		8			16
Site Visit (1)			8		8			16
Structural Design								-
Documentation & Data Collection			8					8
WMATA Safety Training & Contractor ID Pickup			8					8
Site Visit (1)			8					8
Mechanical Design								-
Documentation & Data Collection			4	8				12
WMATA Safety Training & Contractor ID Pickup			8					8
Site Visit (1)			8					8
Electrical & Fire Alarm Design								-
Documentation & Data Collection			8	8				16
WMATA Safety Training & Contractor ID Pickup			8					8
Site Visit (1)			12					12
Plumbing/Fire Protection Design								-
Documentation & Data Collection			4	8				12
WMATA Safety Training & Contractor ID Pickup			8					8
Site Visit (1)			8					8
Systems/Communications Design								-
Documentation & Data Collection				4				4
WMATA Safety Training & Contractor ID Pickup			8	8				16
Site Visit (1)			8	8				16
Site/Civil Design								-
Documentation & Data Collection			4	8				12
WMATA Safety Training & Contractor ID Pickup			8					8
Site Visit (1)			8					8
Stormwater Management Plan (Draft)			8	16		32		56
Subsurface Utilities Investigation Report			8	16		32		56

Landscape Architecture Design								-
Documentation & Data Collection			4					4
Site Visit (1)			8					8
								-
								-
								-
Manhour Totals:	26	2	348	226	20	80	8	712
Hourly Payroll Rate:	\$274.69	\$208.92	\$208.92	\$188.07	\$145.65	\$121.19	\$82.27	
Budgeted Costs:	\$7,142	\$416	\$72,704	\$35,356	\$2,013	\$9,695	\$858	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile		\$ 0.580	\$ -	
Air Fare, per airline ticket		600.00	-	
Ground Transport, per vehicle-trip		14.00	-	
Meals, per person per day		30.00	-	
Lodging, per room-night		200.00	-	
Third-Party Photocopies, per copy		0.15	-	
Blackline or Blueline Prints, per sheet		0.80	-	
Bond or Vellum Reproductions, per sheet		1.25	-	
Mylar Seals, per sheet		10.00	-	
Photographs, per roll (including development)		12.00	-	
Overnight Postage, per package		20.00	-	
Parking		14.00	-	
OTHER:		-	-	
SUBTOTAL ODC:			\$ -	
				BUDGETED COSTS: \$ 128,886.26
				EFFORT MULTIPLIER: 1.0000
				BUDGETED EFFORT: \$ 128,886.26
				ODC: \$ -
				ODC MULTIPLIER: 1.00
				BUDGETED ODC: \$ -
				SUBCONSULTANTS: \$ 12,244.88
				SUB MULTIPLIER: 1.00
				BUDGETED SUBS: \$ 12,244.88
				TOTAL: \$ 141,131.14
SUBCONSULTANTS:				
			ITEM COST	
Timmons Group / Survey			\$ 12,244.88	
NAME / DESCRIPTION				
SUBTOTAL SUBS:			\$ 12,244.88	

Printed: October 03, 2019 08:53 AM

Prepared: 201910029_Arlington - Ballston West Entrance To Arlington 2019100220191002_Ballston West Entrance Fee_Inv.xls SUMMARY



ESTIMATE OF PROFESSIONAL SERVICES Task 3: Technical Analysis

STV Proposal or Job Number: 0070826 Client Job Number: 18-089-9 Task 1
 Project Description/Location: Balston Metro Station West Entrance 35% Design Documents
 Client: Arlington County
 Design Assumptions: _____

Prepared By/Date: AR 09/18/19
 Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Project Coordination/Administration								
General Project Coordination			18					18
Sub Coordination			18					18
QA/QC	18		18					32
Deliverable Coordination (Environmental Clearance)	18		18					32
Deliverable Coordination (Egress Analysis)	18		18					32
Egress Analysis								
Prepare Egress Analysis			60	100		200	200	560
Environmental Clearance								
Categorical Exclusion/Documentation	38		4	120	32	170		362
Manhour Totals:	84	0	144	220	32	370	200	1,050
Hourly Payroll Rate:	\$274.89	\$208.92	\$208.92	\$155.07	\$145.65	\$121.19	\$82.27	
Budgeted Costs:	\$23,074	\$0	\$30,064	\$34,115	\$4,661	\$44,840	\$16,454	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile	1,300	\$ 0.580	\$ 754.00	Summary BUDGETED COSTS: \$ 153,228.94 EFFORT MULTIPLIER: 1.0000 BUDGETED EFFORT: \$ 153,228.94 ODC: \$ 2,402.00 ODC MULTIPLIER: 1.00 BUDGETED ODC: \$ 2,402.00 SUBCONSULTANTS: \$ 600.00 SUB MULTIPLIER: 1.00 BUDGETED SUBS: \$ 600.00
Air Fare, per airline ticket		600.00	-	
Ground Transport, per vehicle-trip		14.00	-	
Meals, per person per day	4	30.00	120.00	
Lodging, per room-night	4	200.00	800.00	
Third-Party Photocopies, per copy	500	0.15	75.00	
Blackline or Blueline Prints, per sheet		0.80	-	
Bond or Vellum Reproductions, per sheet	100	1.25	125.00	
Mylar Seals, per sheet		10.00	-	
Photographs, per roll (including development)		12.00	-	
Overnight Postage, per package	25	20.00	500.00	
Parking	2	14.00	28.00	
OTHER:			-	
SUBTOTAL ODC:			\$ 2,402.00	

Directs

	ITEM COST
EDR Data purchase for Phase 1	\$ 600.00
SUBTOTAL SUBS: \$ 600.00	
TOTAL: \$ 158,230.94	



ESTIMATE OF PROFESSIONAL SERVICES

Task 4: Evaluation & Update of Previously Developed Documents

STV Proposal or Job Number: 0070826 Client Job Number 18-089-9 Task 1
 Project Description/Location: Balfston Metro Station West Entrance 35% Design Documents
 Client: Arington County
 Design Assumptions: _____

Prepared By/Date: AR 09/18/19
 Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Project Coordination								-
Task Coordination	24		80					104
Architectural Design								-
Review & Confirm 35% Concept Design	4		4	8	30	64	70	180
Review Against Current Design Criteria			4	4	20	50	11	89
Develop 35% Plans			40	80	240	240	240	840
Develop 35% Specifications			20	40	40	24	16	140
Basis of Design Report (Draft)			4	16	24	18		60
QA/QC	2	16	8		40			66
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			16		16			32
Develop Project Renderings	4				200			204
Structural Design								-
Review & Confirm 35% Concept Design	4		40	24				68
Review Against Current Design Criteria			24	8				32
Develop 35% Plans			48	80		160		288
Develop 35% Specifications			16	24				40
Calculations			80	280				360
Basis of Design Report (Draft)			8	16				24
QA/QC (Other than Calcs)	2	16	30					48
QA/QC (Calcs)			40					40
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			16	16				32
Mechanical Design								-
Review & Confirm 35% Concept Design	4		16	16				36
Review Against Current Design Criteria			8	8				16
Develop 35% Plans			27	93	24			144
Develop 35% Specifications			16					16
Basis of Design Report (Draft)		4	16					20
QA/QC	2	16	16					34
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			8					8
Electrical & Fire Alarm Design								-
Review & Confirm 35% Concept Design	4		8	16				28
Review Calculations			8					8
Review Against Current Design Criteria			8	8				16
Develop 35% Plans			16	16	24			56
Develop 35% Specifications			16	8				24
Basis of Design Report (Draft)			8	8				16
QA/QC	2	16	4					22
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			8					8
Plumbing/Fire Protection Design								-
Review & Confirm 35% Concept Design	2		8	4				14
Review Against Current Design Criteria			8	4				12
Develop 35% Plans			8	24	0		40	72
Develop 35% Specifications			8	0				8

Basis of Design Report (Draft)			4	0				4
QA/QC	2	4	4	2				12
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			8					8
Systems/Communications Design								-
Review & Confirm 35% Concept Design	20		80	30				130
Review Calculations	4		18					20
Review Against Current Design Criteria	20		80	30				130
Develop 35% Plans	4		40	20				64
Develop 35% Specifications	4		40	10				54
Basis of Design Report (Draft)	4		20	10				34
QA/QC	8		2					10
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			18					18
Site/Chw/MOT Phasing Design								-
Review & Confirm 35% Concept Design	4		8	16		40		68
Develop Conceptual MOT and Phasing	8		24	40		40		112
Review Against Current Design Criteria			8	8				18
Develop 35% Plans			18	24	80	120		240
Develop 35% Specifications			24	16				40
Basis of Design Report (Draft)			2	4				8
QA/QC	8		24					32
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			18					18
Landscape Architecture Design								-
Review & Confirm 35% Concept Design		4	8	8				20
Review Against Current Design Criteria			8	8				16
Attend 35% Design Review Meeting (1)			4					4
Address 35% Comments			8					8
Constructability Review								-
Review of 35% Design	4	40	80					124
								-
								-
Manhour Totals:	144	116	1,261	1,027	738	554	577	4,417
Hourly Payroll Rate:	\$274.69	\$208.92	\$208.92	\$158.07	\$145.89	\$121.19	\$82.27	
Budgeted Costs:	\$39,555	\$24,235	\$263,448	\$158,257	\$107,400	\$67,136	\$47,470	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile	2,000	\$ 0.580	\$ 1,160.00	Summary BUDGETED COSTS: \$ 708,593.84 EFFORT MULTIPLIER: 1.0000 BUDGETED EFFORT: \$ 708,593.84 ODC: \$ 10,310.00 ODC MULTIPLIER: 1.00 BUDGETED ODC: \$ 10,310.00 SUBCONSULTANTS: \$ - SUB MULTIPLIER: 1.00 BUDGETED SUBS: \$ -
Air Fare, per airline ticket		600.00	-	
Ground Transport, per vehicle-trip	40	14.00	560.00	
Meals, per person per day		30.00	-	
Lodging, per room-night	8	200.00	1,600.00	
Third-Party Photocopies, per copy	10,000	0.15	1,500.00	
Blackline or Blueprint Prints, per sheet		0.80	-	
Bond or Vellum Reproductions, per sheet	4,000	1.25	5,000.00	
Mylar Seals, per sheet		10.00	-	
Photographs, per roll (including development)		12.00	-	
Overnight Postage, per package		20.00	-	
Parking	35	14.00	490.00	
OTHER:			-	
SUBTOTAL ODC:			\$ 10,310.00	TOTAL: \$ 718,903.84

SUBCONSULTANTS:

NAME / DESCRIPTION	ITEM COST
NAME / DESCRIPTION	\$ -
	-
SUBTOTAL SUBS:	\$ -

Printed: October 03, 2018 08:53 AM

I:\Projects\2018\70020_Arington - Station West Entrance\Arington\20181002\20181002_Station West Entrance Fee_let.xls>SUMMARY



ESTIMATE OF PROFESSIONAL SERVICES

Task 5: Construction Schedule & Construction Cost Estimate

STV Proposal or Job Number: 0070826 Client Job Number 18-089-9 Task 1
 Project Description/Location: Ballston Metro Station West Entrance 35% Design Documents
 Client: Arlington County
 Design Assumptions:

Prepared By/Date: AR 09/18/19
 Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Project Coordination/Administration								-
General Project Coordination			40		40			80
Sub Coordination								-
QA/QC	40							40
Deliverable Coordination (Schedule)	16		16		16			48
Deliverable Coordination (Cost Estimate)	16		16		16			48
								-
								-
								-
Construction Schedule								-
Construction Schedule	40		80	160				280
								-
								-
Cost Estimate								-
Cost Estimate	40		820			120	80	760
								-
								-
								-
								-
Manhour Totals:	152	0	672	160	72	120	80	1,256
Hourly Payroll Rate:	\$274.89	\$208.82	\$208.82	\$159.07	\$148.65	\$121.19	\$82.27	
Budgeted Costs:	\$41,783	\$0	\$140,394	\$24,811	\$10,467	\$14,543	\$6,582	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile		\$ 0.580	\$ -	
Air Fare, per airline ticket		800.00	-	
Ground Transport, per vehicle trip		14.00	-	BUDGETED COSTS: \$ 238,589.52
Meals, per person per day		30.00	-	EFFORT MULTIPLIER: 1.0000
Lodging, per room-night		200.00	-	BUDGETED EFFORT: \$ 238,589.52
Third-Party Photocopies, per copy		0.15	-	
Blackline or Blueline Prints, per sheet		0.80	-	ODC: \$ -
Bond or Velum Reproductions, per sheet		1.25	-	ODC MULTIPLIER: 1.00
Mylar Seals, per sheet		10.00	-	BUDGETED ODC: \$ -
Photographs, per roll (including development)		12.00	-	
Overnight Postage, per package		20.00	-	
Parking		14.00	-	SUBCONSULTANTS: \$ -
OTHER:		-	-	SUB MULTIPLIER: 1.00
				BUDGETED SUBS: \$ -
SUBTOTAL ODC:			\$ -	

SUBCONSULTANTS:

NAME / DESCRIPTION	ITEM COST	
NAME / DESCRIPTION	\$ -	
NAME / DESCRIPTION	-	
NAME / DESCRIPTION	-	
SUBTOTAL SUBS:		\$ -
		TOTAL: \$ 238,589.52



ESTIMATE OF PROFESSIONAL SERVICES

Task 6: Bridging Documents & Design-Build Procurement Services

STV Proposal or Job Number:
 Project Description/Location:
 Client:
 Design Assumptions:

0070826 Client Job Number 18-089-9 Task 1
 Ballston Metro Station West Entrance 35% Design Documents
 Arlington County

Prepared By/Date:
 Reviewed By/Date:

AR 09/18/19
 LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Architectural Design								
Develop Bridging Documents	4		8	16	40	64	80	212
QA/QC	8				40			48
Address Comments on Bridging Documents			8	8	40	64	24	144
Structural Design								
Develop Bridging Documents			60	20	20			100
QA/QC	2	16	30					48
Address Comments on Bridging Documents			40	20	20			80
Mechanical Design								
Develop Bridging Documents			18	64	24			104
QA/QC	2	16	18					34
Address Comments on Bridging Documents			8	24	16			48
Electrical & Fire Alarm Design								
Develop Bridging Documents			18	12	16			44
QA/QC	2	16	4					22
Address Comments on Bridging Documents			8	8	8			24
Plumbing/Fire Protection Design								
Develop Bridging Documents			8	12				20
QA/QC	2	4	4	2				12
Address Comments on Bridging Documents			4	8				12
Systems/Communications Design								
Develop Bridging Documents			20	12				32
QA/QC	8		2					10
Address Comments on Bridging Documents			20	12				32
Site/Civil/MOT Phasing Design								
Develop Bridging Documents			8	12	24		40	84
QA/QC	8		16					24
Address Comments on Bridging Documents			8		16		16	40
Landscape Architecture Design								
Develop Bridging Documents			4	8	16			28
QA/QC	2		2					4
Address Comments on Bridging Documents			2		8			10
Bridging Documents Support								
Develop Bridging/Procurement Documents	40		160	380			80	640
QA/QC	24	24						48
Clarifications	16		40	80			40	176
Responses to Contractor Questions/Concerns	8		40	80			40	168
Manhour Totals:								
	126	76	552	758	288	126	320	2,248
Hourly Payroll Rate:	\$274.69	\$208.92	\$208.92	\$155.07	\$145.65	\$121.19	\$82.27	
Budgeted Costs:	\$34,811	\$15,678	\$115,324	\$117,543	\$41,947	\$15,512	\$26,326	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	Summary	
Travel (mileage), per vehicle-mile		\$ 0.580	\$ -		
Air Fares, per airline ticket		600.00	-	BUDGETED COSTS: \$	367,141.68
Ground Transport, per vehicle-trip		14.00	-	EFFORT MULTIPLIER:	1.0000
Meals, per person per day		30.00	-	BUDGETED EFFORT: \$	367,141.68
Lodging, per room-night		200.00	-		
Third-Party Photocopies, per copy		0.15	-		
Blackline or Blueline Prints, per sheet		0.80	-	ODC: \$	-
Bond or Vellum Reproductions, per sheet		1.25	-	ODC MULTIPLIER:	1.00
Mylar Seals, per sheet		10.00	-	BUDGETED ODC: \$	-
Photographs, per roll (including development)		12.00	-		
Overnight Postage, per package		20.00	-		
Parking		14.00	-	SUBCONSULTANTS: \$	-
OTHER:		-	-	SUB MULTIPLIER:	1.00
				BUDGETED SUBS: \$	-
SUBTOTAL ODC:			\$ -		
SUBCONSULTANTS:					
			ITEM COST		
NAME / DESCRIPTION			\$ -		
NAME / DESCRIPTION			-		
SUBTOTAL SUBS:			\$ -	TOTAL: \$	367,141.68

Printed: October 03, 2019 08:53 AM

I:\Prepwork\2019\0826_Arlington - Ballston West Entrance\To Arlington\2019\002\20181002_Ballston West Entrance Fee Jan 21\SUMMARY



ESTIMATE OF PROFESSIONAL SERVICES Safety and Security Documentation

STV Proposal or Job Number: 0070828 Client Job Number 18-089-9 Task 1
 Project Description/Location: Bairston Metro Station West Entrance 35% Design Documents
 Client: Arlington County
 Design Assumptions: _____

Prepared By/Date: AR 09/18/19
 Reviewed By/Date: LEH 09/23/19

Manhours by Classification

Direct Labor Estimate:	Sr. PM	Sr. Eng./PM	Sr. Eng.	Eng. 2	Arch.	Eng. 1	Jr. Eng.	Total
Security Documentation								
Project Meeting			18	4				20
Document Review		8	32	16				56
Preliminary Threat and Vulnerability Analysis		8	124	16				148
Design Criteria Conformance		8	82	16				116
Bridging Document Support			32	48				80
Safety Documentation								
Project Meeting			16	4				20
Document Review		8	24	8				40
Preliminary Hazard Analysis		8	110	16				134
Design Criteria Conformance		8	120	16				144
Bridging Document Support			40	48				88
Manhour Totals:								
	0	48	608	208	0	0	0	848
Hourly Payroll Rate:								
	\$274.69	\$208.82	\$208.82	\$155.07	\$149.65	\$121.18	\$82.27	
Budgeted Costs:								
	\$0	\$10,028	\$126,806	\$32,235	\$0	\$0	\$0	

Other Direct Costs (ODC) Estimate:

	UNITS	UNIT COST	ITEM COST	
Travel (mileage), per vehicle-mile	1,800	\$ 0.580	\$ 1,044.00	
Air Fare, per airline ticket		800.00	-	
Ground Transport, per vehicle-trip		14.00	-	
Meals, per person per day	12	30.00	360.00	
Lodging, per room-night	12	200.00	2,400.00	
Third-Party Photocopies, per copy		0.15	-	
Blackline or Blueline Prints, per sheet		0.80	-	
Bond or Vellum Reproductions, per sheet		1.25	-	
Mylar Seals, per sheet		10.00	-	
Photographs, per roll (including development)		12.00	-	
Overnight Postage, per package		20.00	-	
Parking	12	14.00	168.00	
OTHER:			-	
SUBTOTAL ODC:			\$ 3,972.00	

Summary	
BUDGETED COSTS:	\$ 168,888.24
EFFORT MULTIPLIER:	1.0000
BUDGETED EFFORT:	\$ 168,888.24
ODC:	\$ 3,972.00
ODC MULTIPLIER:	1.00
BUDGETED ODC:	\$ 3,972.00
SUBCONSULTANTS:	\$ -
SUB MULTIPLIER:	1.00
BUDGETED SUBS:	\$ -

SUBCONSULTANTS:

NAME / DESCRIPTION	ITEM COST
NAME / DESCRIPTION	\$ -
NAME / DESCRIPTION	\$ -
SUBTOTAL SUBS:	
	\$ -
TOTAL:	
	\$ 172,860.24



20110 Ashbrook Place
Suite 100
Ashburn, VA 20147

P 703.554.6700
F 703.726.1345
www.timmons.com

September 4, 2019
Rev 9/26/19

STV Incorporated
Attn: Mr. Christopher Kocher, P.E.
Engineering Director
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031
(571) 633-2228 Office
(571) 480-2025 Cell
christopher.kocher@stvinc.com

Dear Mr. Kocher:

Re: Topographic Survey, Right of Way/Boundary Line Determination Survey and SUE Level B – Ballston Metro Entrance

Timmons Group is pleased to offer this proposal for topographic survey Right of Way/Boundary Line Determination Survey and SUE Level B Survey, on an approximately 1-acre above ground portion of the Ballston Metro entrance (located at 901 N. Glebe Rd.) and tunnel area at the intersection of North Fairfax Drive and North Vermont Streets in Arlington, VA. We look forward to working with you to achieve your vision for this project.

Thank you for allowing Timmons Group to provide professional services on this project. We will provide the requested services, complying with established standards, while being mindful of costs to the Client (the "Client") named above according to the terms and conditions of this Letter of Agreement (the "Agreement"). Prior to submittal to a public agency, all documents will be sent to the Client, if requested, to ensure a complete understanding by all parties.

SCOPE AND SCHEDULE OF SERVICES:

Timmons Group will provide the services as detailed on the Scope of Services attached as Exhibit A (the "Scope of Services").

We will provide services in a timely and efficient manner and will keep you informed of the job status and any necessary changes. We estimate that the project will be completed within 2-3 weeks of our receipt of written Notice to Proceed. Any changes required to the Scope of Services must be approved in writing before such changes take effect, and you will be notified by the project manager. As of the date first written above, any changes in the Scope of Services caused by governing codes or Client revisions may require a schedule and/or fee change. You will be notified of any such changes in writing by the project manager.

PAYMENT SCHEDULE:

FIXED FEE

Fees for this Agreement will be billed on a monthly basis as a fixed fee per the Scope of Services in Exhibit A and will be billed per the master subcontract agreement #18-089-9.

TERMS AND CONDITIONS:

This Agreement shall be controlled by the provisions listed above and the Terms and Conditions in the master subcontract agreement #18-089-9. If there is any conflict between the provisions of this Letter of Agreement and the Terms and Conditions, the Terms and Conditions shall control.



20110 Ashbrook Place
Suite 100
Ashburn, VA 20147

P 703.554.6700
F 703.726.1345
www.timmons.com

We will proceed upon receipt of this signed Agreement. Please note that fees quoted are valid for sixty (60) days from the date first written above.

REIMBURSEMENTS:

Any services and costs such as submittal fees, printing, courier, mileage and outside consultants not listed in the Scope of Services ("General Reimbursements") will be invoiced separately in addition to the professional services provided under this Agreement. Reimbursements may include a reasonable handling charge of up to 15% of cost.

PAYMENT TERMS:

Unless otherwise provided under the terms of this Agreement, all payments will conform to the master subcontract agreement, 18-089-9.

We will proceed upon receipt of this signed agreement. Should you have any questions, you can reach me directly at (703) 554-6704 (direct), by cell (703)581-4217 or via email at jeff.smeraldo@timmons.com.

9/26/19

Timmons Group

Date

ACKNOWLEDGED AND ACCEPTED:

On behalf of the Client, this Agreement, including Exhibit A [Scope of Services] Exhibit B [Terms and Conditions] is accepted and agreed to as of the date written below.

By: _____

Name: _____

Title: _____

Date: _____



20110 Ashbrook Place
 Suite 100
 Ashburn, VA 20147

P 703.554.6700
 F 703.726.1345
 www.timmons.com

**EXHIBIT A
 SCOPE OF SERVICES**

Under this Agreement, Timmons Group will provide professional services relative to the project located at intersection of North Fairfax Drive and North Vermont Street in Arlington, VA and outlined in the diagram below.

Exhibit A

Task 1: Topographical Survey and Quality Level C SUE:.....\$5,067.78
 Provide a field run topographical survey, as defined by the Commonwealth of Virginia, for the delineated project site shown in the diagram below consisting of approximately 1 acre. The survey will extend to the face of the buildings and cover the entrance area of the Ballston Metro Station and will be limited to the above ground facilities and will cover the approximate limits of the WMATA tunnels below of the adjacent roads. The survey will include location of visible physical improvements, storm and sewer structure invert data, pavement locations and 1' contour data with a DTM. The final survey will be provided in a cad format suitable for engineering design and the survey will be tied to the Virginia State Plane Coordinate System (VCS NAD83 – North) and the North American Vertical Datum 1988 (NAVD88), Arlington County or WMATA LDP coordinates if necessary. Boundary information will be shown based on any existing evidence found in the field and available records but will not constitute a boundary survey of any affected properties

This survey will include location of above ground evidence of utilities combined with records research of the existing utilities if available. This effort will conform to Quality Level "C" as defined by the American Society of Civil Engineers (ASCE) and will be reinforced with the Quality Level B SUE work in Task 3. The accuracies of the locations are subject to the visible evidence at the time of the survey and the quality and availability of records by the utility owners. Evidence of easements, if found in records research or in the field will be shown on the survey.

Task 2: ROW/Boundary Line Determination Survey:\$3,721.96

Determine the boundary lines/right of way lines for the properties affected by the project limits and will be limited to the lines of those properties adjoining N. Vermont Rd and North Fairfax Road. The subject properties are listed as Parcel ID Nos: 14016018 (4501 Fairfax Dr.), 14051358 (901 N. Giebe Rd), 14017016 (4401 Fairfax Dr), and 14051019 (4420 Fairfax Dr). The final survey will be provided in a cad format suitable for engineering design and incorporated into the topographic survey work. A signed and sealed of the compiled survey will be provided.

Task 3: Underground Utility Location Survey:\$3,455.14

An underground utility survey can be performed to designate and map underground facilities on the project site. This utility survey will include horizontal designation through geophysical methods and is defined as Quality Level "B" by the American Society of Civil Engineers (ASCE). The accuracies of the markings are subject to the depth and electrical conductivity of the utility as well as site conditions and manhole access. Plastic and fiber optics lines without tracer wires may be unlocatable. This service does not include the use of ground penetrating radar. Exclusions: Excluded are non-conductive utilities such as sanitary & storm lines (including laterals and roof drains), irrigation systems, and abandoned lines.

The scope and fees are based on the following assumptions:

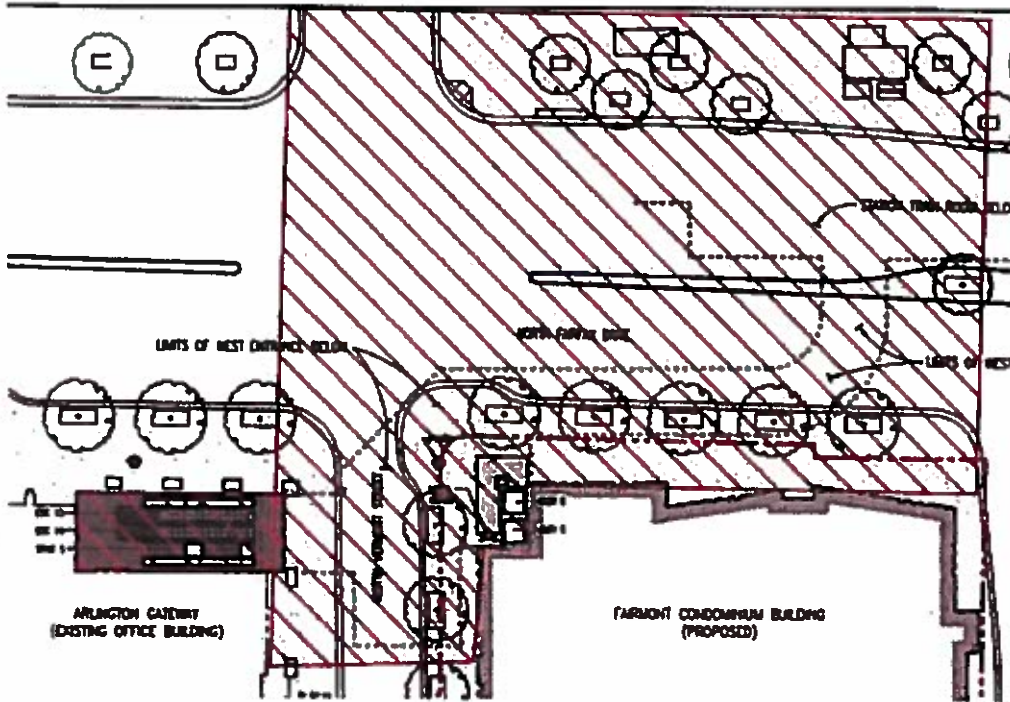
- The Client will provide project survey control or datum if possible (WMATA LDP vs. Arlington County etc.)
- Easement research is excluded but easements may be added to the drawing if a title report is provided by the Client.
- The ROW/boundary line work will proceed at the same time with the topography but is limited to the property lines in the project area (Boundary surveys of the entire in the survey area properties are excluded).

Deliverables:

- AutoCad drawing file and 3-D surface suitable for design.

If additional scope items are required or if our assumptions need to be adjusted, please let me know and we will update this proposal.

Project Site:



**Balston Metro
Task 1 Topographic Survey**

Category	Rate	Estimated Hours	Sub Total	Comments
Licensed Land Surveyor	\$162.22	2.50	\$405.55	Jan 2019 Avg Fully Loaded Rate
Survey Project Manager	\$120.91	3.50	\$423.19	Jan 2019 Avg Fully Loaded Rate
SR. Survey Technician	\$107.66	16.00	\$1,722.56	Jan 2019 Avg Fully Loaded Rate
Survey CAD Specialist	\$99.53		\$0.00	Jan 2019 Avg Fully Loaded Rate
Survey Party Chief	\$98.30	16.00	\$1,572.80	Jan 2019 Avg Fully Loaded Rate
Instrument Operator	\$58.98	16.00	\$943.68	Jan 2019 Avg Fully Loaded Rate
		Total	\$5,067.78	

Expenses None

**Ballston Metro
Task 2 ROW/Boundary Line Determination Survey**

Category	TG Rate	Estimated Hours	Sub Total	Comments
Licensed Land Surveyor	\$162.22	6.00	\$973.32	Jan 2019 Avg Fully Loaded Rate
Survey Project Manager	\$120.93		\$0.00	Jan 2019 Avg Fully Loaded Rate
SR. Survey Technician	\$107.66	8.00	\$861.28	Jan 2019 Avg Fully Loaded Rate
Survey CAD Specialist	\$99.53		\$0.00	Jan 2019 Avg Fully Loaded Rate
Survey Party Chief	\$98.10	12.00	\$1,179.60	Jan 2019 Avg Fully Loaded Rate
Instrument Operator	\$58.98	12.00	\$707.76	Jan 2019 Avg Fully Loaded Rate
		Total	\$3,721.96	

Expenses None

**Ballston Metro
Task 3 SUE Level B Task**

Category	RG Rate	Estimated Hours	Sub Total	Comments
Licensed Land Surveyor	\$162.22	0.50	\$81.11	Jan 2019 Avg Fully Loaded Rate
Survey Project Manager	\$120.91	1.75	\$211.59	Jan 2019 Avg Fully Loaded Rate
SR, Survey Technician	\$107.66	6.00	\$645.96	Jan 2019 Avg Fully Loaded Rate
Survey CAD Specialist	\$99.53		\$0.00	Jan 2019 Avg Fully Loaded Rate
Survey Party Chief	\$98.30	16.00	\$1,572.80	Jan 2019 Avg Fully Loaded Rate
Instrument Operator	\$58.98	16.00	\$943.68	Jan 2019 Avg Fully Loaded Rate
		Total	\$3,455.14	

Expenses None