

ARLINGTON COUNTY, VIRGINIA

**AGREEMENT NO. 20-DES-RFP-031
AMENDMENT NUMBER 05**

This Amendment Number 05 is made on 12/13/2021 by the County and amends Agreement Number 20-DES-RFP-031 ("Main Agreement") dated September 22, 2020 between **Stantec Architecture, Inc.** ("Contractor") and the **County Board of Arlington County, Virginia** ("County").

The County and the Contractor agree to amend the main contract as follows:

1. AMEND EXHIBIT E, STANTEC ARCHITECTURE, INC. BEST AND FINAL OFFER, DATED AUGUST 12, 2020, AS FOLLOWS:

The Contract Amount is increased by \$175,935, in accordance with Stantec’s Professional Services Agreement Change Order No. 5 dated November 23, 2021, which is included as an attachment to this Amendment No. 4. The total Contract Amount is changed from \$3,509,058 to \$3,684,993.

2. Contract Extension: The completion of the Construction Documents Phase is hereby extended for an additional thirteen (13) weeks, in accordance with Stantec’s Professional Services Agreement Change Order No 5 dated November 23, 2021, which is included as an attachment to this Amendment No.5. The completion date for the Construction Documents Phase is changed from January 31,2022 to April 30, 2022.

All other terms and conditions of the Main Agreement remain in effect.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON
COUNTY, VIRGINIA

AUTHORIZED: DocuSigned by:
SIGNATURE: *Sy Gezachew*
27FC198F4A6D475...
NAME: SY GEZACHEW
TITLE: PROCUREMENT OFFICER
DATE: 12/13/2021

STANTEC ARCHITECTURE, INC.

AUTHORIZED: DocuSigned by:
SIGNATURE: *Ken Anderson*
5C1DBC4788E647D...
NAME: Ken Anderson
TITLE: Senior Principal
DATE: 12/13/2021



PROFESSIONAL SERVICES AGREEMENT CHANGE ORDER

Change Order #	Change Order No. 5	Date	23 November 2021
"Stantec"	Stantec Architecture Inc.		
	Stantec Project # 218320411		
	3001 Washington Blvd., Suite 500, Arlington, VA 22201		
	Ph: (703) 485-8547		
	email: greg.shiple@stantec.com		
Client	Arlington County Government		
	Client Project # 20-DES--RFP-031		
	Facilities Design & Construction, 1400 N Uhle St., Suite 403, Arlington, VA 22201		
	Ph: (703) 228-7887		
	email: jmir@arlingtonva.us		
Project Name and Location:	Arlington Transit (ART) Operations and Maintenance Facility at 2629 and 2635 Shirlington Road ART Battery Electric Bus Pilot Preliminary Planning Services		

In accordance with the original Professional Services Agreement dated 22 September 2020 and Change Orders thereto, the Agreement changes as detailed below are hereby authorized.

1.0 Introduction

Arlington Transit (ART) is moving forward with the transition of their fleet to Battery Electric Buses (BEBs). ART plans to procure fifteen (15) BEBs in FY2024 for delivery and operation when the facility opens in 2025. It is anticipated that ART will procure an additional twenty (20) BEB's every two years until their entire fleet is replaced.

Stantec Consulting Inc. (Stantec) has been supporting ART with facility consulting services in addition to some preliminary BEB make-ready analysis and as such, ART wishes to engage Stantec to advance this BEB initiative forward starting with the required planning and moving into the detailed design services required to support the planned BEB fleet at their depot.

Transitioning a fleet to zero emission, and specifically to a Battery Electric Bus (BEB) fleet requires careful planning and involves stakeholders who are rarely consulted by transit agencies. The primary source of fuel for a BEB fleet is electricity and therefore, the electric utility provider becomes the primary fuel supplier. In addition, the dispensing infrastructure to re-fuel BEB's is typically housed at the depot thus creating impacts and requiring further planning.

For this reason, Stantec recommends segmenting this BEB effort into the following phases:

- Planning and conceptual design
- Detailed design to support installation (Excluded from this proposal and will be addressed following the first phase.)

As the results of the planning and procurement will drastically impact the nature of the detailed design, this proposal focuses on the Planning and Conceptual Design.



2.0 Anticipated Scope of Services

Arlington County has defined the following scope of services activities:

- Stantec shall review implications to the site associated with bringing Dominion Power along Shirlington Road. Dominion Power shall define the need for any required easements and Dominion Power shall provide a detailed cost estimate associated with the route.
- Based on ART's 2024-2025 BEB bus projections, Stantec shall determine the number of simultaneous charging stations that Dominion Power can support as well as provide projected charging times for Level 3 charging (including at the initial power line capacity with selected building transformer). The calculations will assume an average fuel economy and vehicle utilization but will consider block and vehicle dispatch schedule from ART to create representative charging profiles. The charging profiles will inform the peak power demand, as well as the simultaneous chargers needed to support the vehicle's projects for 2024-2025.
- Stantec will develop three alternates estimating of full fleet charging demands to inform electricity supply needs to Parcel A.
- The Stantec team shall develop footprint alternates within AOMF Parcel A for transformer(s), generators, and switchgear with the least reduction of ART bus parking areas with approximate cost and construction impact for different locations.
- The Stantec team shall develop electrical duct bank layouts from the charging infrastructure to the bus charging locations, showing impacts of gantry or 'plug-in' dispensers on the bus parking lot.
- The Stantec team shall provide construction cost estimates for the various proposed options.
- The Stantec team shall accommodate seven bays for BEB (low-voltage electric bus charging equipment). The Stantec team shall review storage needs associated with BEBs. County will not store batteries on the site. Bus wash to be evaluated to sure safe operations.

3.0 Clarifications and Assumptions

The following clarifications and assumptions apply to the services offered under Section 2.0.

- For the purposes of this assessment, Stantec has assumed that ART is only considering BEB's and not Fuel Cell Electric Buses (FCEBs).
- No predictive route modeling would be conducted, instead, an average fuel economy would be considered to develop the BEB's energy requirements.
- Proposed backup power generation strategy shall assume that during a utility outage, only 50% of the depot BEB's will need to be charged for the full build, but full capacity shall be provided for the initial bus procurement of 15 buses. This shall be confirmed by ART.
- Estimating the full fleet charging demands without full fleet modeling will require Stantec to make assumptions about fleet charging and operations and sector innovation. Stantec will present assumptions and uncertainties associated with the alternates developed.

4.0 Engineering Fee Proposal

Professional fees of \$175,935 is proposed for this amendment. The fee includes an estimated \$165,171 to provide the scope of services outlined above and an allowance of \$10,764 for possible changes to the scope resulting from discussions with Kimley-Horn Associates, the County's consultant providing a ZEB study for the County Environmental Management Bureau.

Additional professional services related to major revisions made to already completed work or to the scope of our services will require a revision to our professional fees. The cost for such changes to the scope of work will be submitted in advance for approval.



PROFESSIONAL SERVICES AGREEMENT CHANGE ORDER

	Total fees this Change Order			\$	175,935.00
	Original agreement amount			\$	3,423,388.00
	CO-01			\$	3,162.00
	CO-02			\$	11,868.00
	CO-03			\$	46,144.00
	CO-04			\$	24,496.00
	Total Agreement			\$	3,684,993.00

Effect on Schedule: Refer to attached schedule.

Payments shall be made in accordance with the original agreement terms. All other items and conditions of the original Agreement shall remain in full force and effect.

Stantec Architecture Inc.

Greg Shipley, AIA, LEED AP BD+C
Senior Associate,
Senior Project Manager

Print Name and Title

Signature

Date Signed:

November 23, 2021

Arlington County Government

John Mir
Project Manager

Print Name and Title

Signature

Date Signed:

Firm	Discipline	Fee
STN - Arch	Project Management, Architecture and Drafting Support	\$ 44,049
STN - BEB Modeling	Battery Electric Bus Specialists	\$ 26,119
STN - Full Fleet Demand	Battery Electric Bus Specialists	\$ 22,647
STN - Power Delivery	Battery Electric Bus Specialists	\$ 24,570
STN - Equip	Industrial Equipment	\$ 5,522
STN - Lighting	Lighting Designer	\$ 1,390
GPI	MEP & FP	\$ 13,382
TG	Civil Engineer	\$ 14,120
CCI	Cost Estimating	\$ 13,372
	TOTAL	\$ 165,171

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Architecture								Totals	
Individual Name		Ken Anderson		Greg Shipley		Gabriel Hohag		Shawn Ryan			
Project Role		Principal in Charge		Senior PM		Architect		Architect			
Billing Level		Level 17		Level 14		Level 12		Level 10			
		\$229		\$173		\$158		\$143	Hrs	Cost	
stage duration (weeks)											
Mod. Req. 5 - BEB	24										
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Project Initiation		\$0		\$0		\$0		\$0	0	\$0	
Project kick-off call	2	\$458	2	\$346	2	\$316	2	\$286	8	\$1,406	
Coordinate and review information		\$0	2	\$346	4	\$632		\$0	6	\$978	
Conceptual Design		\$0		\$0		\$0		\$0	0	\$0	
Develop preliminary layout		\$0	20	\$3,460	40	\$6,320	72	\$10,296	132	\$20,076	
Coordinate call with client to finalize locations		\$0	4	\$692	4	\$632	4	\$572	12	\$1,896	
Coordinate with consultants		\$0	4	\$692	22	\$3,476	16	\$2,288	42	\$6,456	
Submit package to ART		\$0		\$0		\$0		\$0	0	\$0	
Assemble and submit package to ART	2	\$458	8	\$1,384	8	\$1,264	20	\$2,860	38	\$5,966	
Apply client final changes and close-out		\$0	2	\$346	4	\$632	16	\$2,288	22	\$3,266	
(3) Coordination Meetings w/ Kimley Horn (KHA)	0	\$0	4.5	\$779	0	\$0	0	\$0	5	\$779	
Project Management	2	\$458	16	\$2,768	0	\$0	0	\$0	18	\$3,226	
									283	\$44,049	
stage duration (weeks)	6	\$1,374	62.5	\$10,813	84	\$13,272	130	\$18,590	283	\$44,049	
TOTAL PER RESOURCE	6	\$1,374	63	\$10,813	84	\$13,272	130	\$18,590	283	\$44,049	

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - BEB Modeling			Totals	
Individual Name	Project Role	Analy Castillo		Sasha Pejic		
		Route Modeler		Transit Lead		
		\$173		\$229	Hrs	Cost
stage duration (weeks)						
Mod. Req. 5 - BEB	24					
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0					
Project Initiation						
Project kick-off call	2	\$346	2	\$458	4	\$804
Coordinate and review information	16	\$2,768		\$0	16	\$2,768
Chargers and Power Modeling Support						
Develop optimized model for number of active chargers (for 1 Facility)	30	\$5,190	5	\$1,145	35	\$6,335
Develop utility usage load profile	15	\$2,595		\$0	15	\$2,595
Prepare report	10	\$1,730	5	\$1,145	15	\$2,875
Conceptual Design						
Develop preliminary layout	5	\$865		\$0	5	\$865
Coordinate call with client to finalize locations		\$0	2	\$458	2	\$458
Develop infrastructure specifications		\$0		\$0	0	\$0
Review and comment on BEB specifications prepared by ART	5	\$865	4	\$916	9	\$1,781
Submit package to ART						
Assemble and submit package to ART	4	\$692	1	\$229	5	\$921
Apply client final changes and close-out		\$0	1	\$229	1	\$229
Procurement Support						
Support ART in reachout to ZEB providers	5	\$865	10	\$2,290	15	\$3,155
Support ART in reachout to charging equipment providers		\$0	2	\$458	2	\$458
Analyze the difference between indoor vs outdoor charging	10	\$1,730	5	\$1,145	15	\$2,875
(3) Coordination Meetings w/ Kimley Horn (KHA)	0	\$0	0	\$0	0	\$0
Project Management		\$0		\$0	0	\$0
					139	\$26,119
stage duration (weeks)	102	\$17,646	37	8473	139	\$26,119
TOTAL PER RESOURCE	102	\$17,646	37	\$8,473	139	\$26,119

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Full Fleet Demand				Totals	
<i>Individual Name</i>		Mike Voll		Dane Labonte			
<i>Project Role</i>		Project Manager		Smart Grid and Energy Transition			
<i>stage duration (weeks)</i>		\$229		\$154	Hrs	Cost	
Mod. Req. 5 - BEB	24						
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0	\$0		\$0	0	\$0	
Project Initiation		\$0		\$0	0	\$0	
Project kick-off call	2	\$458	2	\$308	4	\$766	
Coordinate and review information	4	\$916	4	\$616	8	\$1,532	
Facility charging needs assessment		\$0		\$0	0	\$0	
Review modeled utility charging impacts (partial fleet)	2	\$458	4	\$616	6	\$1,074	
Develop three alternates for facility charging needs	5	\$1,145	20	\$3,080	25	\$4,225	
Conceptual Design		\$0		\$0	0	\$0	
Determine electricity infrastructure layout characteristics for each alternate	4	\$916	12	\$1,848	16	\$2,764	
Coordinate with estimating resources to define probable costs associated with alternates	2	\$458	8	\$1,232	10	\$1,690	
Determine alternate layouts with architectural team	2	\$458	8	\$1,232	10	\$1,690	
Prepare draft report	5	\$1,145	20	\$3,080	25	\$4,225	
Coordinate call with client to present layout alternates and pros and cons	2	\$458	2	\$308	4	\$766	
Finalize report	2	\$458	8	\$1,232	10	\$1,690	
Project Management		\$0		\$0	0	\$0	
(3) Coordination Meetings w/ Kimley Horn (KHA)	0	\$0	4.5	\$693	5	\$693	
Client Meetings	4	\$916	4	\$616	8	\$1,532	
					131	\$22,647	
<i>stage duration (weeks)</i>	34	\$7,786	96.5	\$14,861	131	\$22,647	
TOTAL PER RESOURCE	34	\$7,786	97	\$14,861	131	\$22,647	

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Power Delivery				Totals	
Individual Name	Project Role	TBD		TBD			
		Senior Electrical Engineer		Lead Engineer (QA)		Hrs	Cost
stage duration (weeks)		\$191		\$219			
Mod. Req. 5 - BEB	24						
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0		\$0		\$0	0	\$0
Conceptual Design			\$0		\$0	0	\$0
Determine utility requirements	8		\$1,528		\$0	8	\$1,528
Equipment research	12		\$2,292		\$0	12	\$2,292
Develop preliminary layouts	64		\$12,224	8	\$1,752	72	\$13,976
Prepare major equipment lists	10		\$1,910	2	\$438	12	\$2,348
Report preparation support	8		\$1,528	2	\$438	10	\$1,966
(3) Coordination Meetings w/ Kimley Horn (KHA)	6		\$1,146	6	\$1,314		
Coordination calls with client to finalize locations	0		\$0	0	\$0	0	\$0
						114	\$22,110
stage duration (weeks)	108		\$20,628	18	\$3,942	126	\$24,570
TOTAL PER RESOURCE	108		\$20,628	18	\$3,942	126	\$24,570

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Industrial Equipment				Totals	
Individual Name		Jared Weismantel		Shrawan Shrestha			
Project Role		Senior Industrial Architect		Industrial Designer			
Billing Level		Level 14		Level 9			
		\$173		\$137		Hrs	Cost
stage duration (weeks)							
Mod. Req. 5 - BEB	24						
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0	0	\$0	0	\$0	0	\$0
<ul style="list-style-type: none"> •Electrical to provide low-voltage electric bus charging equipment for (2) repair bays. •Industrial will coordinate with Electrical and others to determine preferred location(s) of low-voltage charging equipment within bays to ensure functional clearances of maintenance operations and equipment are maintained. •Industrial assumes only equipment (provisions) required in Maintenance Bays will be computer cabinet, to be selected by ART. Industrial will specify computer cabinet and coordinate utilities (power / data) required at desired locations. •Industrial will select and specify mobile electric bus tow tractor to move "dead" electric buses in and out of Maintenance Bays. 	24		\$4,152	10	\$1,370	34	\$5,522
						34	\$5,522
stage duration (weeks)	24	\$4,152	10	\$1,370	34	\$5,522	
TOTAL PER RESOURCE	24	\$4,152	10	\$1,370	34	\$5,522	

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Lighting Design						Totals	
<i>Individual Name</i>		Rachel Fitzgerald		Vannessa Pederson		Alina Wof			
<i>Project Role</i>		Principal in Charge		Lighting Designer		Lighting Designer			
<i>Billing Level</i>		Level 13		Level 10		Level 08			
		\$167		\$143		\$127	Hrs	Cost	
<i>stage duration (weeks)</i>									
Mod. Req. 5 - BEB	24								
MEETINGS (TOTAL HOURS PER WORKSTAGE)	0	0	\$0	0	\$0	0	\$0	0	\$0
Project Initiation			\$0		\$0		\$0	0	\$0
Project kick-off call			\$0		\$0		\$0	0	\$0
Coordinate and review information			\$0	1	\$143		\$0	1	\$143
ZEB and Electricity Modeling Support			\$0		\$0		\$0	0	\$0
Develop schedule-optimized model (for 1 Facility)			\$0		\$0		\$0	0	\$0
Develop utility usage load profile			\$0		\$0		\$0	0	\$0
Prepare report			\$0	1	\$143		\$0	1	\$143
Conceptual Design			\$0		\$0		\$0	0	\$0
Develop preliminary layout			\$0	2	\$286	4	\$508	6	\$794
Coordinate call with client to finalize locations			\$0	1	\$143		\$0	1	\$143
Develop infrastructure specifications			\$0		\$0		\$0	0	\$0
Review and comment on ZEB specifications prepared by ART			\$0		\$0		\$0	0	\$0
Project Management	1		\$167		\$0		\$0	1	\$167
								10	\$1,390
<i>stage duration (weeks)</i>	1		\$167	5	\$715	4	\$508	10	\$1,390
TOTAL PER RESOURCE	1		\$167	5	\$715	4	\$508	10	\$1,390

ART Operations and Maintenance Facility

Project Planning Fee Spreadsheet

11/19/2021

Stantec Architecture, Inc.

		Stantec Personnel - Allowance												Totals			
Individual Name		Greg Shipley		Gabriel Hohag		Shawn Ryan		Analy Castillo		Sasha Pejic		Mike Voll		Dane Labonte			
Project Role		Senior PM		Architect		Architect		Route Modeler		Transit Lead		Project Manager		Smart Grid and Energy Transition			
Billing Level		Level 14		Level 12		Level 10											
stage duration (weeks)		\$173		\$158		\$143		\$173		\$229		\$229		\$154		Hrs	Cost
Mod. Req. 5 - BEB																	
MEETINGS (TOTAL HOURS PER WORKSTAGE)																	
Allowance for possible changes to the scope resulting from discussions with KHA		8	\$1,384	8	\$1,264	8	\$1,144	8	\$1,384	8	\$1,832	8	\$1,832	8	\$1,232	56	\$10,072
Project Management		4	\$692		\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	4	\$692
stage duration (weeks)		12	\$2,076	8	\$1,264	8	\$1,144	8	\$1,384	8	\$1,832	8	\$1,832	8	1232	60	\$10,764
TOTAL PER RESOURCE		12	\$2,076	8	\$1,264	8	\$1,144	8	\$1,384	8	\$1,832	8	\$1,832	8	\$1,232	60	\$10,764



20110 Ashbrook Place
Suite 100
Ashburn, VA 20147

P 703.726.1342
F 703.726.1345
www.timmons.com

ADDITIONAL SERVICE NO. 1

Client:	Stantec	Date:	November 18, 2021
Contact:	Greg Shipley	Project Manager:	Osvaldo Ramos
Phone No:	703.485.8547	Phone No.:	703.554.6719
Phone No:	703.861.8632	E-mail:	osvaldo.ramos@timmons.com
E-mail:	greg.shipley@stantec.com	Project:	47032 AOMF
		Description:	BEB Infrastructure

Timmons Group (TG) has prepared this additional service proposal at the request of the Client. The additional service is required for coordination, planning and schematic site plan design to accommodate the infrastructure required for battery electric buses. The additional service has been presented in two phases and can be authorized in series, if needed.

Task E40: Coordination & scoping for upgrades to power

TG will coordinate with the Owner, Stantec, project design team, and Dominion Energy to determine:

- Potential route for dominion 34.5KV line from 4MR substation to Parcel A
 - along Shirlington Road (underground or overhead)

TG will coordinate with Dominion on the potential requirement for new or expanded power easements from adjacent parcel owners.

TG will prepare a scaled exhibit to show the power alignment and potential offsite easement locations.

TG will prepare a scaled exhibit to show the potential effects the proposed power alignments may have on the current civil and landscape design plan and narrative of the plan revisions that would be required to accommodate the new power alignment.

TG will request form Dominion Energy a detailed cost estimate for the two options.

Task E41: Schematic Layout of charging stations

TG will work with Stantec and the project design team to develop a schematic design demonstrating:

- the number and location of simultaneous charging stations the Dominion feed can support
- the required duct bank layout from charging infrastructure to bus charging locations
- alternative locations for transformer(s), generator, and switchgear with least reduction of ART bus parking areas



20110 Ashbrook Place
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ADDITIONAL SERVICE NO. 1


The schematic design(s) will be guided by the required design parameters of the charging station system as prepared by the project electrical engineer. TG will provide CADD drawings and pdfs of the exhibits to Stantec for presentation to the Client. A narrative describing the required site plan modifications that would be required to accommodate the charging stations and infrastructure will be provided.

TG assumes all cost estimation will be completed by the project cost estimation team.

This additional service does not include revising the current site plan, additional survey for alternative power alignments, coordination with other private utility providers, pursuing additional agreement, plats or permits. If the Owner decides to move forward with the upgrades to the power supply system and including the simultaneous charging stations into the site plan and project, then TG will prepare an additional service to (1) further coordinate with Dominion Energy to pursue the alternative power alignment and (2) revise the current site plan to include the charging station, duct banks and other system requirements.

Arlington Regional Transit (ART)							
Operations and Maintenance Facility			Principal	PM	PE3	PEI	LA
Add Service #1 - Battery Electric Buse infrastructure			210	175	130	105	120
Add Service 1 - BEB Scoping		Fee					
TASK	PHASE I – CONCEPT DESIGN / PROGRAMMING VERIFICATION						
E40	Coordination & scoping for upgrades to power	\$6,120		8	16	16	8
E41	Schematic Layout of charging stations	\$8,000		8	24	24	8
	Sub Total	\$14,120					

PLEASE SIGN BELOW TO INDICATE YOUR APPROVAL AND RETURN WITHIN SEVEN (7) DAYS SUCH THAT THIS CHANGE ORDER MAY BE INCORPORATED INTO THE PROJECT WITHOUT DELAYING THE SCHEDULE AS NOTED ABOVE. PLEASE KEEP A COPY FOR YOUR RECORDS.

_____		11/18/2021
CLIENT	Date	Date
	Timmons Group	



Authorization for ADDITIONAL Professional Services

Project:	Arlington County Transit (ART) Operations and Maintenance Facility: Battery Electric Buses – Phase 1	Proposal No.:	2019PS209 R2 AS1 2019PS209 R2 AS1 R1
Client:	Stantec	Project No.:	2020307.00
Contact:	Greg Shipley, AIA, LEED AP BD+C	Date:	07.15.2021, 10.01.2021
From:	Doug Brenner, PE	No. of Pages:	2

Greenman-Pedersen, Inc. (GPI) is submitting for your confirmation a request for additional services for the above referenced project. All Terms and Conditions stipulated in the original contract 2019PS209 R2, dated 07.23.2020 will apply to this change.

GPI will provide the following additional services:

- Attend up to (6) design team meetings to support BEB selection
- Coordinate with Dominion on phased electrical service implementation
 - Coordinate routing of overhead power from Dominion 34.5 kV line from 4MR substation to Parcel A
 - Identify options for increasing charging capacity with increased power delivery to Parcel A. GPI assumes the proposed Dominion line will be sufficient to power all future bus charging, and this effort includes a phased build-out of power infrastructure to accommodate expansion of the bus charging service
- Assist in preparation of concept layout drawings including transformers, switchgear, generators, chargers, and dispensers
- Develop duct bank layouts to bus charging locations, showing impacts of gantry or plug-in stations
- Develop provisions for in-bay charging (2 bays ready on day one, include provisions for the other five bays).

The following items are excluded:

- Support of Phase 2 (procurement). It is assumed GPI will not be needed to assist in this step.
- Phase 3 (design). After the parameters of the BEB system are determined, a proposal will be submitted to accommodate the design, detailing, specifications, and construction administration efforts required.
- Cost Estimates
- Bus and charging equipment selection, route planning, and in-route charging stations. This equipment will be selected by others and GPI will provide the required connections (power).

Compensation:

Based upon the above additional services and the original contract, we propose a lump sum fee of:

\$ 13,382

We trust this agreement meets with your approval. Please indicate your acceptance by signing below and returning a copy of this Agreement. Work will proceed only after the receipt of the signed agreement. Through their signature, the client declares that they understand the enclosed Terms and Conditions and has discussed with GPI any or all details that might be unclear.

10.01.2021
Page 2

2021PS209 R2 AS1 R1
ART: Battery Electric Buses – Phase 1

Sincerely,

For Greenman-Pedersen, Inc.:



10.01.2021

Doug Brenner, PE
Project Manager/Senior Mechanical Engineer

For Client:

Accepted by an Authorized Agent, Date
Principal or Owner

Printed Name

Client Project Number

Project: ART Bus O&M
BEB Phase 1
10.01.2021



Task / Hours	Principal	Project Manager	Senior Engineer	Engineer	CAD	Administrative	Total Hours	Total Fee
AS1								
Design meetings (6)		6	6	6			18	\$ 2,696.64
Dominion Coordination		8	12	6			26	\$ 3,938.90
Concept Layout			16	20			36	\$ 4,969.00
In-bay charging			8	8			16	\$ 2,227.68
							0	\$ -
							0	\$ -
							0	\$ -
							0	\$ -
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							0	\$ -
							0	\$ -
							0	\$ -
							0	\$ -
							0	\$ -
							0	\$ -
Total								\$ 13,832
Total Hours	0	14	42	40	0	0	Check expenses	
Rates	\$ 191.71	\$ 170.98	\$ 150.05	\$ 128.41	\$ 96.31	\$ 69.79	Check labor	
Total Fee	\$ -	\$ 2,394	\$ 6,302	\$ 5,136	\$ -	\$ -	Check total	\$ 13,832



October 07, 2021

Greg Shipley

Stantec

1600 Wilson Boulevard Suite 360

Arlington VA 22209-2510

Ref: Art Bus Maintenance Facility – Scope Change Battery Electric Bus Hookup

Dear Greg:

We are pleased to submit a proposal to provide cost estimating services for the ART Bus Maintenance Facilities – for Battery Electric Hookup. The fee is based on providing one estimate with two options. Dominion to price incoming service.

A breakdown of our fee is as follows:

<u>Estimates</u>	<u>Hours</u>	<u>Hours Rate</u>	<u>Total</u>
Estimate 2 Options	80	145.35	11,628
Cost Reconciliation - Allowance	12	145.35	1,744
<hr/>			
	Total		\$13,372.00

We appreciate the opportunity to submit our proposal and look forward to working with you on this project. Please call me at 703-749-0200 if you have any questions.

Sincerely,

Martin P. O'Connell

President