

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY 600 5th Street St. N.W., Washington, D.C. 20001 AMENDMENT OF SOLICITATION / MODIFICATION OF CONTRACT

1. AMENDMENT/MODIFICATION	2. EFFECTIVE D		
#1		7/9/2018	
3. ISSUED BY PURCHASING SECTION WMATA	4. ADMINISTERE	D BY (If other than block 3)	
600 5th Street N.W.	Margarita R	odriguez, Contract Administrator	
Washington, DC 20001	0		
5. CONTRACTOR NAME AND ADDRESS		6. FORM TYPE (Check only one) Sup	oply of Metro Box
		AMENDMENT OF SOLICITATION NO.	Q18142/MDR
		DATE 7/9/2018	(See block 7)
(Street, city,			
county, state, and Zip Code)		MODIFICATION OF CONTRACT/ORDER	NO
			ee block 9)
7.THIS BLOCK A	PPLIES ONLY TO	D AMENDMENTS OF SOLICITATIONS	
amended, by one of the following methods of this amendment on each copy of the off amendment numbers. FAILURE OF YOU AND DATE SPECIFIED MAY RESULT IN	; (a) By signing and re er submitted; or (c) by JR ACKNOWLEDGME I REJECTION OF YO made by telegram or	is amendment prior to the hour and date specified in turning <u>1</u> copies of this amendment; (b) by separate letter or telegram which includes a reference INT TO BE RECEIVED AT THE ISSUING OFFICE F UR OFFER. If, by virtue of this amendment you der letter, provided such telegram makes reference to t pecified.	acknowledging receipt e to the solicitation and PRIOR TO THE HOUR sire to change an offer
3. ACCOUNTING AND APPROPRIA	TION DATA (If re	quired)	
	N/A		
	,, .		
9. THIS BLOCK APPLIES ONLY TO	MODIFICATIONS	OF CONTRACTS/ORDERS	N/A
(a) This Change Order is issued pursu	ant to		
(b) The above numbered contract/orde			
(b) The above numbered contract/orde (such as changes in paying office, a			
(c) This Supplemental Agreement is e It modifies the above numbered co			
10. DESCRIPTION OF AMENDMENT This modification amends the terms and		contract as follows:	
1) Extending bids from: Wed. 7/11/20 BIDS ARE NOW DUE: Fri. 7/13/207	18 @ 2:00 PM est.		
2) Please replace with attached revised	d pages (total of 12 65 Calendar Days. clarified, UL Certifie	 H-Frame also means 19" Open Rack 	
In addition, page(s) footer are marked "Al	MENDMENT".	hat appears in the right margin at the revision loca	
11. CONTRACTOR/OFFEROR IS REQUI	RED TO SIGN THIS	CONTRACTOR/OFFEROR IS NOT REQ DOCUMENT	
2. NAME OF CONTRACTOR/OFFICE		15. WASHINGTON METROPOLITAN AREA	RANSIT AUTHORITY
		DN: cn=	Margarita Rodriguez, o=WMATA, ou= rement & Materials,
		Contract Administrator	idRodriguez@WMATA.com, c=US : WMATA -JGB - 4th Floor (#403A)
BY(Signature of person authorized to a	sign)		18.07.09.20:15:55 -04'00'
13. NAME AND TITLE OF SIGNER (Type or print)	14. DATE SIGNED	16. NAME OF CONTRACTING OFFICER (Type or prin	
10. HANLE AND TITLE OF SIGNER (Type or print)	IT. DATE SIGNED		
		Margarita Rodriguez, CA	7/9/2018



Invitation For Bids (Federal)

SUPPLY OF METRO BOX

Solicitation IFB No.: FQ18142/MDR

BIDS DUE: 2PM Wed. July 11, 2018 BIDS DUE: 2PM Fri. July 13, 2018

FUNDING: Federal DBE: 4% Date: June 19, 2018

Margarita Rodriguez Contract Administrator Office of Procurement and Materials <u>mdrodriguez@wmata.com</u>

AMENDMENT #1

WASHINGTON METROPOLITAN AREA T	RANSIT AUTHORITY
SUPPLY AND SERVICE CONTRACT	IFB: FQ18142/MDR

	I tro	WASHINGTON METROPOL SOLICITATION,				
CONTRA	ACT NO.	SOLICITATION NO.	DATE ISSUE	D ADE	DRESS OFFER TO	OFFICE OF PROCUREMENT
		IFB: FQ18142/MDR	6/19/201	.8	600 Fit	f Procurement fth Street NW gton, DC 20001
		SOLIC				
at Authority If this is an ac CAUTION – All offers are 1. The Solid 2. The Term 3. The Price	Sealed offer of electronic bid submission through "PROCORE" for furnishing the supplies or services in the schedules will be received at Authority until <u>WED. Friday 2:00 P.M.</u> Local time <u>July 11, 2018</u> July 13, 2018 (Hour) (Date) If this is an advertised solicitation, offers will be publicly opened at that time. CAUTION – LATE OFFERS: See paragraph 6 of Solicitation Instructions. All offers are subject to the following: 1. The Solicitation Instructions that are attached. 2. The Terms and Conditions that are attached. 3. The Price Schedule included herein and/or attached hereto. 4. Such other provisions, representations, certifications, and specifications, as are attached or incorporated herein by reference.					
Bidder's e	Bidder's e-mail: Bidder's phone number					
SCHEDULE						
ITEM NO.		SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT (GRAND TOTAL)
	See	- Price Schedule Sheet			+	\$

DUN & BRADSTREET ID NUMBER:

В	IDDER		
Name and Address (Street, city, county, state, and zip code)	Name and Title of Pe	rson Authori:	zed to Sign Offer (Print or Type)
Check if remittance is different from above — enter such address in Schedule	Signature Offer E		Offer Date
AWARD (To be com	pleted by The	Authorit	y)
ACCEPTANCE AND AWARD ARE HER	EBY MADE FOR TH	E FOLLOWII	NG ITEM(S):
ITEM NO.	QUANTITY	UNIT	AWARD TOTAL
SUPPLY OF METRO BOX	(See p Sche		\$

The total amount of this award is \$_____

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY AWARD DATE

WASHINGTON METROPOLITAN AREA TRAN	<u>SIT AUTHORITY</u>
SUPPLY AND SERVICE CONTRACT	IFB: FQ18142/MDR

PRICE SCHEDULE

Supply of Metro Box		
Type of Acquisition: FFP		
Purchase/Installation:	Build/Supply Metro Boxes	
Period of Performance:	365 Calendar Days	

	C	ESCRIPTION	QTY	UOM	UNIT PRICE		EXTENDED TOTAL
1.	Project Man	agement Services	1	LOT	\$	=	\$
2.	Design Serv	vices	1	LOT	\$	=	\$
	PROTO	<u> FYPE - METRO BOX (ME</u>	3)				
3.	Prototype ME	B Enclosure Units	1	EA	\$	=	\$
4.	Prototype ME	3 – Outdoor Installation Kit	1	EA	\$	=	\$
	PRO	DUCTION					
5.	Metro Box	Production equates to build, assemble, test & del	iver. 130	EA	\$	=	\$
6.	Outdoor MB Kit	Equates to modifications of MB for outdoor installat	ions. 5	EA	\$	=	\$
7. Documentation Services		1	LOT	\$	=	\$	
8 Testing Support		130	EA				
9.	Commissio	ning Services	130	EA	\$	=	\$
10.	Allowance -	- Spare Parts	1	LOT	\$	=	\$
11.	11. Training Services		1	LOT	\$	=	\$
12.	12. Extended Warranty		2	EA	\$	=	\$
13.	13. Miscellaneous as Directed Indirect costs, office, small tools, etc.		. 1	LOT	\$	=	\$
GRAND TOTAL:				\$			

Authorized Signature

Date

Print: (Name & Title)

Company Name & Address

<u>*NOTES:</u> Pricing shall be F.O.B. Destination, covering all costs including but not limited to labor, materials, markups, overhead, profit, insurance, fuel, freight, and transportation.

The contractor shall complete entries in the columns entitled "Unit Price" and "Extended Price". Prices shown on the Bid Price Schedule sheet shall constitute full compensation of all costs of performance under this contract. Price evaluation will be based on the extended price.

WASHINGTON METROPOLITAN AREA	<u>FRANSIT AUTHORITY</u>
SUPPLY AND SERVICE CONTRACT	IFB: FQ18142/MDR

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SOLICITATION, OFFER AND AWARD

CONTINUATION SHEET

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE FOLLOWING AMENDMENTS

TO SOLICITATION IFB No.: FQ18142/MDR

Amendment Number 1	Dated 7/9/2018
Amendment Number	Dated

Failure to acknowledge receipt of all amendments may render the bid unacceptable.

Authorized Signature

Print (Name/Title)

Company Name

Date:

CHAPTER II - TIME/DELAYS/LIQUIDATED DAMAGES

1. PERIOD OF PERFORMANCE

The period of performance is <u>365</u> calendar days commencing on the Notice to Proceed Date (NTP). *NOTE: Please refer to Appendix "C".*

Extended Warranty for parts "only"; for two (2) additional years. *Please refer to page 144, Section 8 Warranty.*

The Authority may exercise the option(s) (if any) by written notice to the Contractor prior to commencement of the option period. The Contracting Officer shall give the Contractor a preliminary notice of its intent to exercise an option within a reasonable time before the Contract expires. The preliminary notice does not commit the Authority to exercise an option.

2. OPTIONS- EVALUATION [N/A]

[NOT APPLICABLE]

3. OPTIONS- EXERCISE [N/A]

[NOT APPLICABLE]

4. <u>OPTION FOR INCREASED OR DECREASED QUANTITIES OF SUPPLIES [N/A]</u> [NOT APPLICABLE]

5. OPTIONS TO EXTEND SERVICES [N/A]

[NOT APPLICABLE]

6. <u>OPTION TO EXTEND THE TERM OF THE CONTRACT [N/A]</u> [NOT APPLICABLE]

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY SUPPLY AND SERVICE CONTRACT IFB FQ

4 Design Process	
4.1 Prototypes	
4.1.1 Prototype MB	
4.1.2 Prototype Outdoor Installation Kit	
4.2 Manufacturing and Delivery	
4.2.1 Production	
4.2.2 Spare Parts	
5 Installation, Testing, and Commissioning	
5.1 Field Testing and Commissioning Support	
5.2 Transportation	
5.3 Commercial Power Connection	
5.4 IT Backplate Equipment	
5.5 BDA Equipment	
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VOL. I (A)	Specifications for WMATA –Supplied Equipment	145
VOL. I (B)	MB Equipment Connection Matrix with MB Module Configuration	148
VOL. I (C)	Equipment Illustration of WMATA-Installed BDAs	149

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AMENDMENT #1

The project has split responsibilities in terms of WMATA-supplied and Contractor-supplied materials and services. As an overview, the responsibility splits are as follows. This specification provides additional details.

Contractor-supplied materials

- MB enclosure and H-frames/<u>19" Open Racks</u>
- Floor isolation base for the MB system
- Commercial AC line voltage termination at the MB
- UPS and battery backup system
- AC line voltage distribution within the MB enclosure and H-frame(s)
- IT backplate and DIN rails (located inside the MB enclosure)
- Miscellaneous hardware for mounting and interconnecting all materials, WMATA and Contractor-supplied

Contractor-supplied services

- Site surveys
- Overall design of the MB for performance and reliability
- MB enclosure and H-frame design and construction
- Fabricate the floor isolation base for the MB system
- Fabricate IT backplate and the BDA interconnection plate
- Warranty and optional extended warranty support services
- Deliver MBs to WMATA specified locations
- Technical commissioning support
- Perform bench test and provide certified test reports for WMATA approval
- Preassemble MBs prior to field installation by others

WMATA-supplied materials

- BDA units
- BDA RF interconnection plate (Please refer to page 136, Section 3.2.11)
- BDA RF distribution cables and supporting small components
- Fiber optic patch panel
- Network equipment and its power supplies for mounting inside the MB enclosure
- Wi-Fi access points, power supplies, antennas, and cables
- Aspirating smoke detectors, power supplies, and cables

The module set shall be mounted on a 4" floor isolation base to hold modules in position and to elevate the system above wet floors. The platform is envisioned as a pair of metal rails and is a topic of design discussion. The Contractor shall supply the mounting platform. WMATA shall bolt the mounting platform to the concrete floor and bolt the MB racks to the platform.

3.1.1 Physical Space Constraints

The floor space of the MB shall not exceed a footprint of 108" wide by 36" deep. The height of the installed MB including the platform shall be between 42" and 70". The actual height shall be determined and approved during site surveys and the design process.

3.1.2 Installation Locations

The Contractor shall supply and deliver MBs to the variety of locations and facilities. Typically, a maximum of three BDAs shall be installed at any location.

3.1.3 Outdoor Installations

In six or less vent shaft situations, there is insufficient space in the shaft, so the MB will be installed outdoors at the top of the shaft. Outdoor installations will require sun shades for the BDAs. The Contractor shall work with WMATA to determine a suitable design for the sun shades. The Contractor shall provide the sun shades. WMATA will install the sun shades, concrete mounting pads, and suitable earth grounding and lightning protection for the outdoor installations. The final number of outdoor installations will be determined during the project. Some outdoor installations may require equipment security fencing. WMATA will supply and install the fencing. WMATA's typical style of fencing is shown in Vol. I (A).

3.1.4 Heat Load Analysis

The Contractor shall perform a heat load analysis for the enclosure. The analysis shall account for the heat generated by the all active electronic equipment in the MB and shall be submitted for approval by WMATA. The operational ambient temperature range is -20 deg. F to 115 deg. F. The internal temperature of the MB should not exceed the range of the electronic equipment that is mounted inside the MB box.

3.1.5 Enclosure Ventilation

Metro Box <u>will not</u> require - active or powered cooling. Metro Box "Shall" required – ventilation.

3.2.4 UPS Batteries

The Contractor shall design and provide a battery bank to provide 2 hour run time in a maximum configured MB system. Within this time the MB supply voltage shall not fall below 87% of the normal voltage.

The battery bank shall be located external to the enclosure in a 19" H-frame/19" open Rack. The Contract shall provide battery tray(s) and battery boxes suitable for protecting the batteries in WMATA's underground and outdoor environments. The battery bank shall provide N+1 redundancy. Loss of one battery may reduce run time capacity but shall not result in loss of all capacity.

The batteries shall be sealed (valve-regulated) lead-acid type to provide a means to recombine hydrogen and oxygen gases, thus minimizing emissions from the cell. The design shall use passive ventilation configuration methods to maintain the hydrogen concentration level below 1% and comply with applicable code requirements.

The Contractor shall design the UPS battery rack for easy installation and replacement of batteries. The batteries shall come with a one-year warranty. The selected batteries shall offer a minimum 8-year replacement cycle.

3.2.5 IT Backplate

The Contractor shall design, provide, and install in the enclosure, the IT backplate illustrated and shown in Figure 3 below. The Contractor shall equip the backplate with three DIN rails as illustrated. The IT network equipment shown on the backplate are provided and installed by WMATA. The Contractor shall locate the DIN rails to accept the WMATA-provided equipment shown in Vol. 1 (A).

IFB FQ18142/MDR

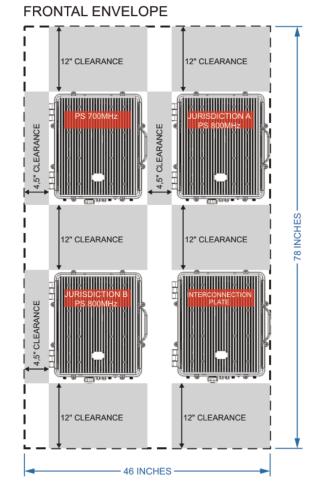


Figure 4 – BDA Rack Layout

3.2.11 RF Interconnection Plate

As per Figure 5, one mounting location in a BDA H-frame/<u>19" open Rack</u> will be occupied by an RF interconnection plate. This plate will house RF connection components shown in a diagram in Figure 5 below. This passive network consists of RF jumpers, bi-directional couplers, cross-band couplers and other components required to connect the BDAs to the underground DAS.

The Contractor shall design, provide, and install, one per MB, weatherproof metal enclosure for the RF interconnection plate. The design of the metal enclosure shall provide unobstructed access to external connections including; the RF monitor port, connections to the DAS, and the inbound and outbound coax cables. The Contractor shall work with WMATA during the design process to arrive a metal enclosure design that accommodates the WMATA-provided RF interconnection plate using simple screw-in-place plate installation.

WMATA will provide and install the RF interconnection plate with the RF components preinstalled. Connection of the interconnection plate components with the BDAs, tunnel DAS and local shaft antennas will be performed by WMATA.

3.2.14 External Network Connections

The IT backplate contains a server which supports additional network connections, beyond those used within the MB. WMATA will use nine network connections as follows:

- Five (5) CCTV cameras
- One (1) tunnel pump RTU
- One (1) tunnel fan RTU
- Two (2) spare

The Contractor shall provide a sealable port in the enclosure for nine (9) plenum rated CAT6A cables. WMATA will install these cables and connect to the equipment on the IT backplate.

3.2.15 Future Space Allocation

The Contractor shall provide 25% spare equipment space in each MB. The Contractor's design shall be expandable for adding enclosures and H-Frame/19" open racks.

3.3 General Design Specifications

The Contractor shall provide a design that allows for the easy routing of cabling and wiring entering and exiting the MB. Where possible, connectors shall be bulkhead mounted for easy access.

The Contractor shall provide a design that has the maximum amount of cabling installed at the manufacturer's factory and not in the underground of the WMATA rail system.

3.3.1 Ratings and Certifications

The enclosure of the MB shall be designed and manufactured to protect electrical and communications equipment, wiring and cabling in wet, dusty and corrosive environment and shall conform to the following ratings and certifications:

- IP66 or NEMA 4X: IT module, spare modules (if any)
- NFPA 70: Electrical Module (as required)
- UL Rated (NOTE: UL Certification Not Required).

SECTION	NAME	CDRL DESCRIPTION	DUE DATE
	Preliminary	Proposed Project Schedule	Submit with Bid
	Project Scheduled	NLT 10 Business Days	After Receipt of Award
-	Project	Status Reports	Monthly
-	Design of MB	Survey Report	NTP + 60 days
3.1.4	Design of MB	Heat Load Analysis	NTP + 90 days
-	Design of MB	35% Design	NTP + 90 days
-	Design of MB	65% Design	NTP + 120 days
-	Design of MB	95% Design	NTP + 150 days
-	Design of MB	Final Design	NTP + 180 days
	= Prototype(s) Completed / Approved by WMATA =		Dec. 31, 2018
	<u>(After comp</u>	6 Months	
	Delivery Must l	0 WIOIIIIS	
5	Installation by others	Installation by others	Per WMATA Schedule
5	Field Testing	Field Testing support	Per WMATA Schedule
5	Commissioning	On-Site Commissioning Support	Per WMATA Schedule
6	Training	Training Material	Final Design + 30 days
7	Documentation	Documentation	Final Design + 60 days
8	Warranty	Warranty and Support Contract	Per WMATA Schedule
9	Conditional	Delivered Functional Units	Per WMATA Schedule
9	Acceptance	Derivered Functional Onits	Per WMATA Schedule
9	Commissioning	Installed and commissioned Units	Per WMATA Schedule
,	Acceptance	instance and commissioned Units	
9	Project Acceptance	Completed Contract Deliverables	Per WMATA Schedule

Appendix C – CDRL Listing

NOTES:

- Please refer to page 53, Section 8. "First Article Inspection".
- Integration technical support may include nights, by prior arrangement.
 Do not need full time night tech staffing.
- The approved project schedule (coordinated by the Contractor & WMATA) shall be the schedule to be used by the Contractor for planning, scheduling, managing and executing the Project.
- The approved schedule shall not be revised without prior approval or direction by the Authority's Representative.



IFB #FQ18142

SUPPLY OF METRO BOX

QUESTIONS & ANSWERS

The following Questions and Answers Summary shall not be construed to modify or change the Bid Documents. The Bidder shall submit its Bid based upon the Bid Documents.

The Bid Documents may only be changed through the use of explicitly identified changes to the Bid Document, and any necessary change to the Bid Documents will be explicitly identified as such in an Addendum that would be issued by WMATA.

LAST DAY TO SUBMIT QUESTIONS: 6/29/2018 - QUESTION FORUM IS NOW "CLOSED".

1) *Q*: What would be the total load will be that we will be backing up and powered in the "Metro Box"?

The scope calls for 2 hours of run time and a N+1 battery string, but we need an estimated load to get an accurate battery sizing.

- **A:** The contractor shall determine the load based upon the list of components provided in "Specifications for WMATA-Supplied Equipment (Appendix "D");
 - And any other installed equipment with safety margin add for each DBA: 2Amps, 200 Watts (700 BTU).
- 2) *Q*: Is this considered a "Construction Contract"? And does it require Payment and Performance Bonds?
 - A: This is a Service & Supplies Contract.Yes, Payment & Performance Bonds are required.Please refer to page 108 in the solicitation documents.
- 3) *Q*: The Quantities of Metro Boxes required is each location considered "One Metro Box" as each site appears to be made up of several cabinets?
 - **A:** Each location is one Metro Box containing (1 cabinet, 2 H frames or 19" open racks and 19" battery box) per the sketch "Metro Box Concept Sketch" (page 128).
- 4) Q: All are cabinets required to be made of 316 Stainless Steel?
 - *A:* YES.



5) *Q*: Please clarify Warranty request on page 144, Section 8 that states;

"The contractor shall replace at no cost to WMTA any defective equipment or hardware during the warranty period".

- (a) Is it right to assume that WMATA will cover the warranty on the parts that the Authority is providing?
- (b) Also, does WMATA want the contractor to include labor to remove and replace any of the WMATA provided parts that may be defective?

A: Warranty to be provided for two years.

- (a) YES, <u>Parts</u>- WMATA does not require warrant on WMATA supplied parts.
- (b) NO Labor, Warranty is only for the parts.
- 6) *Q*: Please identify location of Metro Box drop-off location?

A: 6901 B Distribution Drive - Beltsville, MD 20705

(Please refer to page 141, Section: 4.2 Manufacturing & Deliver)

7) *Q*: Does WMATA have any requirements on the time duration that they would like for the equipment to be energized and bench tested?

From experience this is usually set for at least .5 hours to 1 hour to ensure proper operational use before packaging.

- A: 0.5 hours to 1 hour is sufficient.
- 8) *Q*: Please confirm working days listed on Pricing Schedule.
 - Pricing schedule states 125 calendar days as the Period of Performance.
 - Section 4.2.1 Production states that "The contractor shall have the capability to manufacture and install all MB's within one year?
 - (Appendix C states NTP +180 days to complete final design portion of the contract).
 - **A:** Period of Performance revised in amendment #1, to 355 Calendar Days, with the following milestones:
 - > Prototype no later than Dec. 31, 2018
 - > Delivery there after within 6 months.



- 9) *Q*: Section 4.2.2 Spares. Please clarify percentage of total parts to be included as spare parts quantity?
 - **A**: 10%
- **10)** *Q*: Does the Authority seek to have the enclosure or all parts of the racks powder coated and paint a specific color? (Metro Brown)
 - **A:** No powder coating is required, and color is not important.
- **11)** *Q*: Will the entire enclosure need UL certifications?
 - A: UL Certification is "NOT" required.
- **12)** *Q*: Which UL certifications are being requested if any? Please refer to question 11.
 - A: N/A, Please refer to question 11.
 - 13) Q: Pricing schedule state 130 Metro Boxes.Section 2.1, Section B state one (1) prototype and one hundred (130) production boxes.

Please clarify amount of metro boxes to price.

We assume you mean 131 boxes but just wanted to clarify.

A: The Price Schedule has line items for the Prototype(s) Line items 3 & 4 (see below).

		PROTOTYPE - METRO BOX (MB)				
5	3.	Prototype MB Enclosure Units			EA	\$
	4.	Prototype MB – Outdoor Installation Kit		1	EA	\$
		PRODUCTION				
	5.	Metro Box	Production equates to build, assemble, test & deliver.	130	EA	\$