



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 27 - Miscellaneous

Proc Folder: 647336

Doc Description: Addendum No.02 - Surveying Equipment - North

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2019-12-06	2019-12-11 13:30:00	CRFQ 0313 DEP2000000018	3

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

RECEIVED

2019 DEC 10 PM 2:53

WV PURCHASING
 DIVISION

VENDOR

Vendor Name, Address and Telephone Number:

C & B Blueprint, Inc.
 824 6th St.
 Huntington, WV 25701
 (304) 525-2175

FOR INFORMATION CONTACT THE BUYER

Brittany E Ingraham
 (304) 558-2157
 brittany.e.ingraham@wv.gov

Signature X

Benny Copley

FEIN # 55-070-4854

DATE 12-9-19

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No.02 issued to publish and distribute the attached information to the vendor community.

Request for Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Environmental Protection, Office of Special Reclamation, to establish a contract for the one-time purchase of surveying equipment and technical support per the bid requirements, specifications, terms and conditions attached to this solicitation.

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATION 47 SCHOOL ST, STE 301		ENVIRONMENTAL PROTECTION OFFICE OF SPECIAL RECLAMATION 47 SCHOOL ST, STE 301	
PHILIPPI	WV26416	PHILIPPI	WV 26416-9998
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	GPS Base and Rover (Sokkia GRX3 or Equal) Stonex S10A base/rover	1.00000	EA	\$16,500.00	\$16,500.00

Comm Code	Manufacturer	Specification	Model #
20121909	Stonex		S10A

Extended Description :
GPS Base and Rover (Sokkia GRX3 or Equal)

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PHILIPPI	WV26416	PHILIPPI	WV 26416-9998
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Data Collector (Carlson Surveyor 2 or Equal)	1.00000	EA	\$3,425.00	\$3,425.00

Comm Code	Manufacturer	Specification	Model #
20121909	Carlson	GPS only software	Surveyor 2

Extended Description :
Data Collector (Carlson Surveyor 2 or Equal)

SOLICITATION NUMBER: CRFQ DEP2000000018

Addendum Number: No.02

The purpose of this addendum is to modify the solicitation identified as (“Solicitation”) to reflect the change(s) identified and described below.

Applicable Addendum Category:

- | Modify bid opening date and time
- | Modify specifications of product or service being sought
- | Attachment of vendor questions and responses
- | Attachment of pre-bid sign-in sheet
- | Correction of error
- | Other

Description of Modification to Solicitation:

Addendum issued to publish and distribute the attached documentation to the vendor community.

1. The purpose of this addendum is to publish vendor questions and agency responses.

No other changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

Stonex S10A base/rover package includes:

- 2-Carrying cases
- 2-Antenna
- 4-Batteries
- 2-Chargers w/power cords
- 2-Multi link cables
- 1-Power/data cable
- 1-12V cable w/alligator clips
- 1-Tribrach
- 1-Tribrach adapter
- 1-Base mounting pole
- 1-Wood/fiberglass tripod
- 1-2 meter carbon fiber pole

Surveying Equipment
CRFQ DEP200000018
Addendum #2
Vendor Questions and Agency Answers

- Q1.** The bid asks for base and rover GRX3 but does not specify any (OAF files) optional authorization files the units come with basic functionality and these files are upgrades that can be purchased to unlock additional features for example L2 option, optional gps constellations, rtk radio, tilt option etc.
- A1.** Yes, include all OAF signal files option.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFQ DEP20*18

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

C & B Blueprint, Inc.

Company

Benny Copley

Authorized Signature

12-6-19

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 6/8/2012



S10A^{UP} GNSS Receiver

High Performance
with Atlas[®] Capability



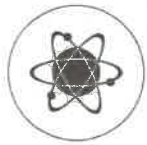
S10A^{UP} High Performance with Atlas[®] Capability

Stonex S10A is the latest Stonex GNSS receiver characterized by a new feature that enhance the performances and potential of the field surveys.

Thanks to aRTK function and service of Atlas[®] correction, Stonex S10A is able to work in particularly difficult areas. Atlas[®] delivers world wide centimetre level correction data through L-band communication satellites and internet.

S10A Receiver is equipped with all important connectivity capabilities, including Bluetooth and Wi-Fi modules, for a fast and stable connection to controller and PC. With radio and the internal GSM is possible to transmit and receive real-time corrections easily and fast.

You can measure the points quickly without the perfect verticality of the pole. The receiver can automatically record the positioning data when the electronic bubble detects the correct level, with no action required by the operator.



MULTI CONSTELLATION

Stonex S10A with its 600 channels, provides an excellent on board real time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU and GALILEO) are included, no additional cost.



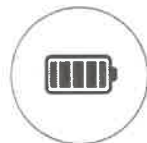
WEB UI CONTROL

To initialize, manage, monitor the settings of the receiver and to download data using portable or PC, smartphone or tablet.



TILT CENTERING

It's possible to measure points with inclination up to 30°. The tilt compensator installed inside can automatically correct the coordinates of the points collected in accordance with the tilt angle and tilt direction of the range pole.



TWO INTELLIGENT BATTERIES

Stonex S10A is delivered with two high capacity smart batteries. The power level can be checked from the controller and directly from a simple led bar on the battery by the simple press of a button.



RUGGED DESIGN IP67 PROTECTION

IP67 certification, combined with a high shock resistance guarantee the maximum strength and the best water and dust tight even in harsh environments.





S10A^{UP}



aRTK & Atlas® Correction Service

S10A is new Stonex GNSS Receiver able to automatically select the best combination of GNSS signals with the possibility to receive Atlas® real time corrections when the connection signals are interrupted or not available. aRTK is an innovative feature available in Stonex S10A GNSS Receiver that greatly mitigates the impact of land-based communication instability.

- aRTK delivered via satellite for uninterrupted centimetre positioning in areas where local RTK communication links are unstable.
- aRTK provides an additional layer of communication redundancy to RTK users, ensuring that productivity is not impacted by intermittent data connectivity.

Thanks to aRTK the receiver is able to continue generating RTK positions in case the land based RTK correction source becomes unavailable for few minutes.

Atlas® is a subscription for S10A aimed to achieve 3 different levels of accuracy depending on subscription type that you need. Atlas® gives the precise positioning centimeters around the world, perfect when working in difficult areas.

Main features

- No RTK base station or RTK network required
- Correction data is continuously transmitted by satellite L-Band or Internet, delivering global coverage
- Bridging RTK outages for uninterrupted accurate positioning
- Autonomous remote position within centimeter accuracy
- Retain position accuracy during RTK data stream losses
- Keep position accuracy as long as needed



SureFix Robust RTK Positioning

SureFix is the new processor that runs in combination with GNSS engine to provide high fidelity RTK quality information. The SureFix processor takes several inputs and determines the quality of the RTK solution in the form of "quality indicators". The indicators are then combined with RTK data and provide the user with high fidelity information about the quality of the RTK solution.

S10A^{AP} TECHNICAL FEATURES

RECEIVER MULTI-FREQUENCY

Satellite Tracked	GPS: L1 C/A, L1C, L1P, L2C, L2P, L5
	GLONASS: L1 C/A, L1P, L2C, L2P, L3
	BEIDOU: B1, B2, B3
	GALILEO: E1, E5a, E5b, Alt-BOC, E6
	QZSS: L1 C/A, L1C, L2C, L5
	SBAS: L1, L5
L-Band Channels	Atlas H10 / H30 / Basic
Position Rate	600
Signal Reacquisition	5 Hz, optional up to 20 Hz
RTK Signal Initialization	< 1 sec
Hot Start	Typically < 4 sec
Initialization Reliability	Typically < 15 sec
Internal Memory	> 99.9 %
Micro SD Card	8 GB
	Expansion slot up to 32 GB

POSITIONING¹

HIGH PRECISION STATIC SURVEYING	
Horizontal	2.5 mm + 0.1 ppm RMS
Vertical	3.5 mm + 0.4 ppm RMS
FAST STATIC	
Horizontal	3 mm + 0.5 ppm RMS
Vertical	5 mm + 0.5 ppm RMS
CODE DIFFERENTIAL POSITIONING	
Horizontal	0.25 m RMS
Vertical	0.45 m RMS
SBAS POSITIONING ²	
Horizontal	0.50 m RMS
Vertical	0.85 m RMS
REAL TIME KINEMATIC (< 30 Km) - NETWORK SURVEYING ³	
Fixed RTK Horizontal	8 mm + 0.5 ppm RMS
Fixed RTK Vertical	15 mm + 0.5 ppm RMS

INTEGRATED GNSS ANTENNA

High accuracy four constellation micro-strip antenna, zero phase center, with internal multipath suppressive board

INTERNAL RADIO

Type	Tx - Rx
Frequency Range	410 - 470 MHz
Channel Spacing	12.5 KHz / 25 KHz
Maximum Range	3-4 Km in urban environment Up to 10 Km with optimal conditions ⁴

Illustrations, descriptions and technical specifications are not binding and may change

- Accuracy and reliability are generally subject to satellite geometry (DOPs), multipath, atmospheric conditions and obstructions. In static mode they are subject even to occupation times: the longer is the Baseline, the longer must be the occupation time.
- Depends on SBAS system performance.
- Network RTK precision depends on the network performances and are referenced to the closest physical base station.
- Varies with the operating environment and with electromagnetic pollution.

STONEX AUTHORIZED DEALER

INTERNAL MODEM

Band	GSM/GPRS/EDGE/3G/LTE: 850/900/1800/1900 MHz WCDMA/HSDPA: 800/850/900/1900/2100 MHz
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COMMUNICATION

I/O Connectors	7-pins Lemo and 5-pins Lemo interfaces. Multifunction cable with USB interface for PC connection
Bluetooth	2.4 GHz class II
Wi-Fi	802.11 b/g/n
Web UI	To upgrade the software, manage the status and settings, data download, etc. via smart phone, tablet or other internet enabled electronic device
Reference outputs	RTCM 2.3, 3.0, 3.1, 3.2 CMR, CMR+
Navigation outputs	GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL

POWER SUPPLY

Battery	Rechargeable and replaceable 10.8 V - 3400 mAh Intelligent lithium battery
Voltage	9 to 22 V DC external power input with over-voltage protection (5 pins Lemo)
Working Time	Up to 8 hours (1 battery)
Charge Time	Typically 4 hours

PHYSICAL SPECIFICATION

Dimensions	φ 140 mm x 145 mm
Weight	1.25 Kg (w/o battery) 1.45 Kg (with battery)
Operating Temperature	-40°C to 65°C (-40°F to 149°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Waterproof/Dustproof	IP67
Shock Resistance	Designed to endure to a 2 m pole drop on concrete floor with no damage
Vibration	Vibration resistant



STONEX®
Part of UniStrong

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