

Boone County Purchasing

Liz Palazzolo, CPPO, C.P.M.
Senior Buyer



613 E. Ash St, Room 110
Columbia, MO 65201
Phone: (573) 886-4392
Fax: (573) 886-4390

NOTICE OF AWARD MEMORANDUM

TO: Melinda Bobbitt, Director
FROM: Liz Palazzolo, Senior Buyer
DATE: April 20, 2022
RE: RFB 13-15APR22 – Broadband Dipole Antennas - Term & Supply for Boone County Joint Communications

Four bids and two “No bids” have been received in response to RFB 13-15APR22 for Broadband Dipole Antennas for Boone County Joint Communications:

1. TESCO Incorporated of Hunt Valley, MD
2. Primus Electronics Corporation of Morris, IL
3. Technology International, Inc. of Lake Mary, FL
4. Alive Telecom of Moken, IL
5. McGilton Construction of Parkville, MO – No Bid
6. Bound Tree Medical, LLC of Dublin, OH – No bid

The four bids were evaluated for responsiveness. The bid from TESCO was determined to be non-responsive because the bidder did not bid antenna pricing, instead bidding only a discount. As such the bid could not be evaluated and so it was removed from consideration. Bidders were required to complete the pricing form per the requirements stated in item 5.1 of the RFB. Additionally, Primus Electronics was considered non-responsive for the 6dBi antenna (item “b”) because Primus noted in its bid that it was bidding only a 5.6 dBi antenna. It is further noted that Technology International, Inc. bid the same product line (RFI antennas) as Primus Electronics but did not note any deviations for this or any items bid.

Cost has been evaluated two ways: the cost evaluation was conducted including item “b” and also not including item “b,” and in both instances Primus Electronics is low bid. The cost evaluations follow this memo. It is noted that the discount quoted by Technology International quoted as “Applied” has been considered as “0” in the cost evaluation. And there was an inconsistency in documentation submitted by Technology International for the discount off list (item #2): the IonWave Bid Attribute was quoted as “0%” in the Supplier Response, but “1/4%” in the uploaded bid attachment. I used the 1/4% in the cost evaluation because even using this higher discount, the outcome of the cost evaluation is not impacted because Primus Electronics is still the lowest priced bidder.

An award of contract will be made to the lowest and best bidder, Primus Electronics Corporation for all items with the exception of the specific antenna bid for item "b." The discount for "b" is considered acceptable and will be awarded (see e-mail from Dave Dunford date 4-20-22). The contract period will run May 01, 2022 through April 30, 2023. The contract can be extended month-to-month for six months until a new rebid is conducted.

This is a Term & Supply contract with no specific purchase order needed at the time of award. When orders are placed off the contract, the following coding will be referenced:

2704 – Boone County Joint Communications Radio Ops/23035 – Repair/Maintenance
Supplies: \$25,000 is budgeted

/lp

c: Contract File

Cost Evaluation RFB 13-15APR22 - Broadband Dipole Antennas

		Primus Electronics Unit Pricing	Primus Electronics Extended Pricing	Technology International, Inc. Unit Pricing	Technology International, Inc. Extended Pricing	Tessco Unit Pricing	Tessco Extended Pricing	Alive Telecom Unit Pricing	Alive Telecom Extended Pricing
	QTY								
Item a: Item #2.2.1 VHF dual antennas, nominal 3dbi gain each section	1	\$ 3,545.18	\$ 3,545.18	\$ 4,303.80	\$ 4,303.80	No Bid Price		\$ 4,900.00	\$ 4,900.00
Discount from MHSRP VHF dual antennas, nominal 3 dBi gain each section	1								
* Cost Evaluation based on \$500 Purchase		33%	\$ 335.00	0%	\$ 500.00	20%		25%	\$ 375.00
Item b: Item #2.2.2 VHF nominal 6dbi gain antenna	1								
Discount from MHSRP VHF dual antennas, nominal 6 dBi gain each section	1	Not Considering	\$ -	Not Considering	\$ -	Not Considering		Not Considering	\$ -
* Cost Evaluation based on \$500 Purchase		27%	\$ 365.00	0%	\$ 500.00	20%		25%	\$ 375.00
Discount from List									
* Cost Evaluation based on \$500 Purchase	1	20%	\$ 400.00	0.2500%	\$ 498.75	20%		25%	\$ 375.00
GRAND TOTAL PRICE			\$ 4,645.18		\$ 5,802.55		Non-Responsive Bid - See File Memo		\$ 6,025.00
		Bidding RFI Antennae		Bidding RFI Antennae		NR		Bidding Alive ATC Antennae	

Cost Evaluation RFB 13-15APR22 - Broadband Dipole Antennas

	QTY	Primus Electronics Unit Pricing	Primus Electronics Extended Pricing	Technology International, Inc. Unit Pricing	Technology International, Inc. Extended Pricing	Tessco Unit Pricing	Tessco Extended Pricing	Alive Telecom Unit Pricing	Alive Telecom Extended Pricing
Item a: Item #2.2.1 VHF dual antennas, nominal 3dbi gain each section	1	\$ 3,545.18	\$ 3,545.18	\$ 4,303.80	\$ 4,303.80	No Bid Price		\$ 4,900.00	\$ 4,900.00
Discount from MHSRP VHF dual antennas, nominal 3 dBi gain each section * Cost Evaluation based on \$500 Purchase	1	33%	\$ 335.00	0%	\$ 500.00	20%		25%	\$ 375.00
Item b: Item #2.2.2 VHF nominal 6dbi gain antenna	1	<i>see file memo up</i> \$ 2,104.65	\$ 2,104.65	\$ 4,955.00	\$ 4,955.00	No Bid Price		\$ 5,200.00	\$ 5,200.00
Discount from MHSRP VHF dual antennas, nominal 6 dBi gain each section * Cost Evaluation based on \$500 Purchase	1	27%	\$ 365.00	0%	\$ 500.00	20%		25%	\$ 375.00
Discount from List * Cost Evaluation based on \$500 Purchase	1	20%	\$ 400.00	0.2500%	\$ 498.75	20%		25%	\$ 375.00
GRAND TOTAL PRICE			\$ 6,749.83		\$ 10,757.55		Non-Responsive Bid - See File Memo		\$ 11,225.00
		Bidding RFI Antennae		Bidding RFI Antennae		NR		Bidding Alive ATC Antennae	

Liz Palazzolo

Exempt
per 355.751(2)11)

RSMo.
gr

From: Sue Hendrick <sue@primuselectronics.com>
Sent: Tuesday, April 19, 2022 4:21 PM
To: Liz Palazzolo
Cc: Melinda Bobbitt
Subject: RE: Missouri Secretary of State Registration - Bid Submission 13-15APR22

[External Source] Take caution! This communication originated outside of **boonecountymo.org**. DO NOT CLICK links or attachments unless they are familiar to you and you feel the content is safe. DO NOT SHARE information with unfamiliar senders.

Hi Liz,

I'm sorry, but those links didn't open for me. In December Primus was awarded a contract thru Melinda and we qualified as a foreign corporation since we don't have a physical address in MO and only do business via interstate commerce. However, I don't see that as an option anymore?

Sue Hendrick
Business Development-Government
Primus Electronics Corp.
4180 E. Sand Ridge Road | Morris, IL 60450
Cell (815) 351-2037
Corporate office (800) 435-1636
Fax (800) 767-7605
www.primuselectronics.com

From: Liz Palazzolo <LPalazzolo@boonecountymo.org>
Sent: Tuesday, April 19, 2022 3:11 PM
To: Sue Hendrick <sue@primuselectronics.com>
Cc: Melinda Bobbitt <MBobbitt@boonecountymo.org>
Subject: FW: Missouri Secretary of State Registration - Bid Submission 13-15APR22

Good afternoon Sue: I am working on the review and potential award preparation for RFB 13-15APR22 for Broadband Dipole Antennas. Upon review of the Missouri Secretary of State's website, I was unable to find your business entity registered with the Secretary of State. If your business entity is registered, please send me the legal name under which your business entity is registered or the charter number assigned to your business entity.

If your business entity is not registered, you may go to the link provided below to register:

www.sos.mo.gov/fileonline

If you believe your business entity is exempt from registering with the Secretary of State due to one of the specific exemptions contained in the Missouri Revised Statutes, please indicate in your response the specific exemption that applies to your business entity.

Below are the exemption sections of the Missouri Revised Statutes for the most popular business entity types:

1. General Business - section 351.572, RSMo, located at <http://www.moga.mo.gov/mostatutes/stathtml/35100005721.html?&me=351.572>
2. Limited Liability Company - section 347.163.5, RSMo, located at <http://www.moga.mo.gov/mostatutes/stathtml/34700001631.html>
3. Limited Partnership - section 359.551.5, RSMo, located at <http://www.moga.mo.gov/mostatutes/stathtml/35900005511.html?&me=359.551>
4. Non-Profit - section 355.751.2, RSMo, located at <http://www.moga.mo.gov/mostatutes/stathtml/35500007511.html?&me=355.751>
5. Professional Corporation - section 356.231, RSMo, located at <http://www.moga.mo.gov/mostatutes/stathtml/35600002311.html?&me=356.231>

Note: Limited Liability Partnerships have no exemptions.

Feel free to contact me if you have any questions.

*Liz Palazzolo – Senior Buyer
Boone County Missouri Purchasing
613 E. Ash Street
Columbia, MO 65201
Direct Phone: 573-886-4392
lpalazzolo@boonecountymio.org*

PRIMUS ELECTRONICS CORP.

Unique Entity ID GH3MZZ48KN55	CAGE / NCAGE 0EJL9	Purpose of Registration All Awards
Registration Status Active Registration	Expiration Date Jan 27, 2023	
Physical Address 4180 Sand Ridge RD Morris, Illinois 60450-9139 United States	Mailing Address 4180 E Sand Ridge Road Morris, Illinois 60450-9156 United States	

Business Information

Doing Business as Primus	Division Name (blank)	Division Number (blank)
Congressional District Illinois 16	State / Country of Incorporation Delaware / United States	URL (blank)

Registration Dates

Activation Date Jan 31, 2022	Submission Date Jan 27, 2022	Initial Registration Date Apr 6, 2000
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Entity Dates

Entity Start Date Aug 31, 1981	Fiscal Year End Close Date Dec 31
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Immediate Owner

CAGE (blank)	Legal Business Name (blank)
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Highest Level Owner

CAGE (blank)	Legal Business Name (blank)
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Executive Compensation

Registrants in the System for Award Management (SAM) respond to the Executive Compensation questions in accordance with Section 6202 of P.L. 110-252, amending the Federal Funding Accountability and Transparency Act (P.L. 109-282). This information is not displayed in SAM. It is sent to USAspending.gov for display in association with an eligible award. Maintaining an active registration in SAM demonstrates the registrant responded to the questions.

Proceedings Questions

Registrants in the System for Award Management (SAM) respond to proceedings questions in accordance with FAR 52.209-7, FAR 52.209-9, or 2.C.F.R. 200 Appendix XII. Their responses are not displayed in SAM. They are sent to FAPIIS.gov for display as applicable. Maintaining an active registration in SAM demonstrates the registrant responded to the proceedings questions.

Exclusion Summary

Active Exclusions Records?
No

SAM Search Authorization

I authorize my entity's non-sensitive information to be displayed in SAM public search results:
Yes

Entity Types

Business Types	Entity Type	Organization Factors
Entity Structure Corporate Entity (Not Tax Exempt)	Business or Organization	(blank)

Socio-Economic Types

Check the registrant's Reqs & Certs, if present, under FAR 52.212-3 or FAR 52.219-1 to determine if the entity is an SBA-certified HUBZone small business concern. Additional small business information may be found in the SBA's Dynamic Small Business Search if the entity completed the SBA supplemental pages during registration.

Financial Information

Accepts Credit Card Payments Yes	Debt Subject To Offset No
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EFT Indicator 0000	CAGE Code 0EJL9
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Points of Contact

Electronic Business

☺ Sue Hendrick, Business Development, Gov't	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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SARA TESTA-DIXON	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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Government Business

☺ Sue Hendrick, Business Development, Gov't	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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GABE DIXON	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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Past Performance

☺ GABE DIXON	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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GABE DIXON	4180 E Sand Ridge Road Morris, Illinois 60450 United States
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Service Classifications

NAICS Codes

Primary Yes	NAICS Codes	NAICS Title
	423690	Other Electronic Parts And Equipment Merchant Wholesalers
	334220	Radio And Television Broadcasting And Wireless Communications Equipment Manufacturing
	334417	Electronic Connector Manufacturing
	334515	Instrument Manufacturing For Measuring And Testing Electricity And Electrical Signals
	335999	All Other Miscellaneous Electrical Equipment And Component Manufacturing
	423440	Other Commercial Equipment Merchant Wholesalers
	423490	Other Professional Equipment And Supplies Merchant Wholesalers
	423710	Hardware Merchant Wholesalers
	423840	Industrial Supplies Merchant Wholesalers
	423850	Service Establishment Equipment And Supplies Merchant Wholesalers
	517911	Telecommunications Resellers

Disaster Response

This entity does not appear in the disaster response registry.

Boone County Purchasing

Melinda Bobbitt, CPPO, CPPB
Director of Purchasing
65201

613 E. Ash



Street, Rm. 110
Columbia, MO

4391

(573) 886-

(573) 886-4390

TO: Dave Dunford
Radio Consultant
Joint Communications

FROM: Melinda Bobbitt, CPPO, CPPB
Director of Purchasing

DATE: 4/18/2022

RE: Bid Award Recommendation – 13-15APPR22 – Broadband Dipole Antennas

Attached is the bid tabulation for the four responses received for the above referenced bid. Please return this cover sheet with your recommendation by e-mail after you have completed the evaluation of this bid. If you have any questions, let me know.

DEPARTMENT REPLY:

Department / Account: 2704-23035; Budgeted: \$25,000

Award Bid to: PRIMUS ELECTRONICS

Recommend rejecting bids for reasons detailed on attached page. (Attach department recommendation).

Administrative Authority Signature: [Signature] Date: 4/19/22

Radio Consultant Signature: [Signature] Date: 4-19-22

Liz Palazzolo

From: David Dunford <davidodunford@gmail.com>
Sent: Tuesday, April 19, 2022 11:35 AM
To: Melinda Bobbitt; Liz Palazzolo
Subject: Fwd: Message from ECC-146
Attachments: SECC-14622041910290.pdf

[External Source] Take caution! This communication originated outside of **boonecountymo.org**. DO NOT CLICK links or attachments unless they are familiar to you and you feel the content is safe. DO NOT SHARE information with unfamiliar senders.

Melinda and Liz, please find attached the signed award recommendation for bid #13-15APR22.

Pat has the original copy for her files.

Since this is a Term and Supply, please do not generate a PO at this time.

I appreciate your help!

Dave Dunford

----- Forwarded message -----

From: <ECC-146@boonecountymo.org>

Date: Tue, Apr 19, 2022 at 11:29 AM

Subject: Message from ECC-146

To: <davidodunford@gmail.com>

Liz Palazzolo

From: David Dunford <davidodunford@gmail.com>
Sent: Wednesday, April 20, 2022 6:25 PM
To: Liz Palazzolo
Subject: Re: Message from ECC-146

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Liz, please award to Primus for the dual (split) antenna with discount of 33% for the BA4040-41-P model under Bid Line 1?

Primus also bid a model BA-40-41-P antenna which is a 5dbi gain antenna under Bid Line 2 with discount of 27%. For that item, our spec requested a "nominal 6dbi gain" unit.

RFI, the product manufacturer, does offer what we want as their model BA-80-41-P which is rated at 8dbi gain. Ideally, we would like to purchase some of the BA-80-41-P units also at the quoted 27% discount.

Primus did offer a 20% discount on "...any other antennas of similar construction..." under Bid Attributes #2 on page 2 of the supplier response.

Thanks for your help on this bid and getting the tower erection bids prepared and sent out.

Dave Dunford

On Tue, Apr 19, 2022 at 4:23 PM Liz Palazzolo <LPalazzolo@boonecountymo.org> wrote:

OK – So my basic question is this: With Primus bidding a 5 dBi gain for a specified 6dBi, I am not sure if they exceed the spec or don't meet the spec, because I found this on the Internet and it seems to imply that a larger dBi gain number doesn't necessarily spell "better" – it depends on the use:

So – I can NOT award this item because it doesn't meet spec – or I can award it because it meets/exceeds spec – what do you think I should do?

What is antenna gain?

With any antenna, the apparent increase in signal is not an amplification of signal, but it is the act of redistribution of available Radio Frequency (RF) signal into a preferred direction. So basically, antennas only divert, direct, or concentrate radio energy in some direction, they don't create it.

The increase in signal using an antenna is called gain and is measured in dBi. The base for dBi measurement is an isotropic radiator (idealistic model that has the same value when measured in different directions) at radio frequencies. As new RF signal is not generated, the stronger signal is achieved at the expense of most other directions.

Some people think that a higher gain antenna will give them the strongest signal and highest quality connection. This is true in some cases, but in certain applications too much gain can be a bad thing. The truth is, the answer to whether you need a higher or a lower gain antenna lies in your application.

Which antenna and gain do I need?

If you want to focus all of the signal to direct it to a distant target, then the high gain antenna is definitely the best choice. High gain antennas need to be pointed in a preferred direction to send RF signal so that limited signal can be intensified in desired location, as illustrated below.

However, if you want to broadcast evenly to a whole room (or give omni-directional access to your wireless signal), you do not want much gain (or it's directivity). Remember, "gain" is simply stealing radiated energy from some directions to intensify others. The higher the dBi number of the antenna, the higher the gain, but less of a broad field pattern, meaning that the signal strength will go further but in a narrower direction, as illustrated in the diagram below.

From: David Dunford <davidodunford@gmail.com>
Sent: Tuesday, April 19, 2022 3:27 PM
To: Liz Palazzolo <LPalazzolo@boonecountymo.org>
Cc: Melinda Bobbitt <MBobbitt@boonecountymo.org>
Subject: Re: Message from ECC-146

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Sure.

There are three principal ways that antenna gain is measured, all involving a db (decibel) gain or loss comparison to a standard. At issue is what the "standard" is. Some numbers using dbi refer to a 'db above an isotropic radiator'. Other numbers use the dbd which refers to 'db above a dipole antenna.' Yet others just state db of gain, which is not even to an EIA RS-329 (older, basic) standard.

In this case, we know what they mean and we have used what they propose. For the dual (or split) antennas there are really only two choices for wideband operation -- Alive and RFI. We bought several of the Alive before the RFI were available here since the RFI was engineered and manufactured in Australia. (Curiously the wood crates they come in are made from eucalyptus, without the Koalas).

The 4.3-10 connector is a new version of European standard DIN connectors and was adopted by Motorola (the main user of this series of RFI antennas). We don't use these connectors because they are not a standard in wide use yet -- and RFI will furnish at N/C a suitable adaptor. The 'standard' DIN that we use is a 7/16-DIN which is larger -- and is used universally for its low loss and better power handling. (Hence more availability of connectors and adaptors in the industry).

Sorry for confusion.

Dave Dunford

On Tue, Apr 19, 2022 at 3:15 PM Liz Palazzolo <LPalazzolo@boonecountymo.org> wrote:

Dave – I am curious about the statement in Primus's bid where they say they deviate from specifications: "Antennas come terminated with 4.3-10 connectors. They will include a low PIM adaptor so can term with either connector (4.3-10mof 7/16 DIN). The dual antenna from RFI Americas is 5 dBi. The bid specs call for m3.5 dBi. The single antenna from RFI Americas is 5 dBi. The bid specs call for 6 dBi. Specs for the antennas are attached."

Can you speak to how this deviation is acceptable?

From: David Dunford <davidodunford@gmail.com>

Sent: Tuesday, April 19, 2022 11:35 AM

To: Melinda Bobbitt <MBobbitt@boonecountymo.org>; Liz Palazzolo <LPalazzolo@boonecountymo.org>

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