

CITY OF BEL AIRE
STAFF REPORT

DATE: April 14, 2022

TO: Ty Lasher, City Manager

FROM: Dave Leiker, Public Works Director

RE: Mastic Street Sealer Purchase Recommendation

Background

In the past, Public Works has used many different methods to repair streets. These include pothole patching, crack sealing, surface milling and patching, and full depth asphalt patching. A brief description of some of the more common repair methods are described. *Potholes* are filled with bags of cold-patch or hot asphalt. *Crack sealing* is a process of filling in street cracks less than three quarters of an inch with melted hot rubber. This is accomplished with a Crafcro crack sealer the city owns. Street cracks exceeding three quarters of an inch are too wide to be filled with hot rubber because the rubber cannot expand and contract with the street. So cracks exceeding three quarters of an inch have been repaired using the *surface milling* method which requires hot asphalt. *Surface milling* requires the use of a Skidsteer and a milling machine attachment. This machine removes a section of pavement two inches deep and about twenty four inches wide and hot asphalt is then rolled and compacted into the milled area.

Last year in 2021 we rented a mastic melting machine to try and expedite the street repairing process. We learned that hot mastic material can be used to make many types of street repairs, including; pot-holes, wide cracks and joints, skin-patch repairs, leveling manholes, and leveling bridge deck approaches.

Mastic is composed of highly modified polymer asphalt binder and durable lightweight construction aggregate. This product is formulated for distresses larger than those typically repaired by crack sealing. It can also be used in place of hot asphalt in certain situations.

Discussion

Last year we reserved and rented the only mastic machine available in Wichita and surrounding area. Staff made street repairs in four neighborhoods over a period of 5 weeks and used 39,000 pounds of mastic, we sealed over 300 thermal cracks. It became apparent quickly that repairing most street cracks with mastic is drastically faster than the milling method. For example; Milling and filling with hot asphalt involves six staff members and we can normally repair six to eight cracks per day. With the use of mastic we use four staff to repair twenty-five to thirty street cracks per day.

Over the winter the patches were observed to see how the material held up to the freeze/thaw cycles and it was discovered that this is a durable product and an efficient method to repair thermal cracks.

We spent \$ 5,000.00 over a five week period to rent the mastic machine and produced about four to five times more street repairs than in the past. Please note; we will still need the crack machine to fill in smaller cracks and can utilize this machine in conjunction with a mastic machine. We also need to use the mill and fill methods with hot asphalt in situations where there are large areas of street damage to repair.

Recommendation

To save time and money and make quality street repairs, staff recommends the purchase of a new mastic melting machine. There are 2 local vendors that sell these machines and accessories it is recommended to go with low bid from CrafcO for \$66,992.80. Thank you for your consideration.

MASTIC MACHINE	Price	Warranty	Delivery
CrafcO	\$ 66,992.80	2 Years	Mid May
McConnell and Associates	\$ 75,740.00	1 Year	45 Days from order





MAC
McConnell & Associates
Pavement Maintenance Products

Quotation

Date: 03/18/22

Customer: City of BelAire Quoted: Dave Leiker/ Tim Aelmore

Address: _____ City: _____

Phone: 316-744-2888 Cell: 316-761-6977

Email: taelmore@belaire.kscoxmail.com Fax: _____

FOB: Dest Freight: Freight included

Duration: 30 day's Terms: Net 30

Job: Street Dept. Quoted by: Dale Robeson

Quantity	Product	Price	Unit
1	Marathon Mastic 250 gal Melter	75740.0000	Total
	Options Included		
	overnight heater, heated chute, 10 lb Fire		
	extinguisher, 18" steel Squeegee		
	12" steel Squeegee, 8" steel Smoother,		
	12 gal Mastic Dispenser		

Notes: Pricing is subject to change
without notice!



MAC Pavement Products of Wichita

1912 W. Harry Ct.
Wichita, KS 67213
Phone (316) 264-1180 Fax (316) 264-1183
d.robesson@mcconnellassociates.org



6165 W. Detroit St.
Chandler, AZ 85226
(602) 276-0406 (800) 528-8242
FAX: (480) 940-0313

QUOTE # BBBQ50712

Date Quoted 3/16/2022
EXPIRATION DATE 4/15/2022

Quote To: Account Code: 920375

Ship To: Account Code: 920375

CITY OF BEL AIRE - KS
N/A

CITY OF BEL AIRE - KS

7651 E CENTRAL PARK AVE.
BEL AIRE, KS 67226
US

7651 E CENTRAL PARK AVE.
BEL AIRE, KS 67226
US

Mobile:

Phone: 316-744-2451

Fax:

N/A

Email:

316-744-2451

Project Title:

Bid Date:

Terms: NET 30

Bid Number:

F.O.B.: PPA- Delivered; freight includ

Project Start Date:

Ship Via: Truck/Common Carrier

Ship Before:

Sales Group:

Quote Effective Dates: 3/16/2022 TO 4/15/2022

Quoted By: Andrew Chesney

Sales Office: 250- Andy Chesney

Estimated Time to Ship After Receipt of Order: Quoted at time of order

Customer: CITY OF BEL AIRE - KS

Quote Number BBBQ50712

Project Title:

Date 03-16-22

SALES TAX EXEMPT CERTIFICATE MUST BE PROVIDED AT THE TIME OF ORDER OR SALES TAX WILL BE ADDED TO YOUR ORDER

Part #	Description	Unit	Qty.	Retail	Quote Price	Ext. Price
56700BASE-AZ03	PATCHER II BASE 4/2020	EA	1	\$78,900.0000	\$58,000.0000	\$58,000.0000
20014-AZ03	3" PINTLE HITCH REV.E	EA	1	\$142.8000	\$142.8000	\$142.8000
20120-AZ03	18" HITCH EXTENSION ASSY RVD	EA	1	\$655.0000	\$655.0000	\$655.0000
24183-AZ03	7 ROUND PIN CONNECTOR W/ CABLE GUARD R.A	EA	1	\$80.0000	\$80.0000	\$80.0000
24095KCL1-AZ03	STROBE LIGHT KIT,CLASS 1/T13 R-A	EA	1	\$435.0000	\$435.0000	\$435.0000
26058-AZ03	10# FIRE EXT. W/COVER REV.B	EA	1	\$250.0000	\$250.0000	\$250.0000
26059-AZ03	FIRE EXT. BRKT FOR 10#, REV.A	EA	1	\$105.0000	\$105.0000	\$105.0000
26119-AZ03	3/8 HOOK W/SAFETY LATCH REV.B	EA	2	\$72.5000	\$72.5000	\$145.0000
57781-AZ03	PROPANE TORCH KIT, PATCHER II RO	EA	1	\$865.0000	\$865.0000	\$865.0000
32250-AZ03	MASTIC SHOEBX(L8xW10xH6)w/4.5' HNDL RV.A	EA	1	\$205.0000	\$205.0000	\$205.0000
32252-AZ03	MASTIC SHOEBX(L8xW12xH6) 4.5' HNDL RA	EA	1	\$210.0000	\$210.0000	\$210.0000
32253-AZ03	MASTIC SHOEBX(L8xW14xH6) w/4.5' HNDL RA	EA	1	\$220.0000	\$220.0000	\$220.0000
45535-AZ03	ENGINE COVER ASSY, 37HP AND BELOW R.L		1	\$1,530.0000	\$1,530.0000	\$1,530.0000

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We value your business.

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ADDED TO YOUR ORDER**

Part #	Description	Unit	Qty.	Retail	Quote Price	Ext. Price
57650-AZ03	HOT MASTIC APPLICATOR	EA	1	\$2,960.0000	\$2,600.0000	\$2,600.0000
	REV.E	EA				
700000	FREIGHT FROM CHANDLER, AZ	EA	1	\$1,550.0000	\$1,550.0000	\$1,550.0000
Total						\$66,992.80

Due to extreme market volatility all prices and availability are subject to change without notice, all quotes to be confirmed at time of order and subject to inventory status.

COMMENTS: