



cityofnovi.org

CITY of NOVI CITY COUNCIL

Agenda Item ^L
August 25, 2008

SUBJECT: Approval to purchase one 2-ton Hot Patcher from Bell Equipment Company in the amount of \$18,000.

SUBMITTING DEPARTMENT: DPW

CITY MANAGER APPROVAL:

EXPENDITURE REQUIRED	\$18,000
AMOUNT BUDGETED	\$30,000
APPROPRIATION REQUIRED	
LINE ITEM NUMBER	101-442.00-982.000

BACKGROUND INFORMATION:

A hot patcher is a trailer-type piece of equipment designed to heat asphalt/cold patch for road repairs on local and major streets. It allows staff to perform emergency road repairs throughout the year.

We evaluated the 7 bids we received in response to our RFP, and recommend purchasing the hot patcher from Bell Equipment, the low qualified bidder.

Company	Cost
Bell Equipment	\$18,000
Spaulding Mfg.	18,365
Spaulding Mfg.	24,165
Howard T. Moriarty	20,207
*Falcon Road Maintenance	13,995
Falcon Road Maintenance	20,395
Kasi Infrared	27,600

**Did not meet bid specifications.*

RECOMMENDED ACTION: Approval to purchase one 2-ton Hot Patcher from Bell Equipment Company in the amount of \$18,000.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Crawford				
Council Member Gatt				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Staudt				

Spaulding MFG., Inc.

“MN 2.10”

4 Ton



Specification Standard

- Weight 3360 lbs.
- Height..... 71 Inches
- Length..... 171 Inches
- Width..... 86 Inches
- Door Opening..... 120 Inches
- Hopper size.....84X86 Inches
- Fuel SoucesDiesel / Propane
- 115,000 BTU Burner
- Easy Replaceable Combustion Chamber
- 12 Volt Electrical System
- Heavy Duty Frame with Continuous Welds
- Large Hopper Opening for Loading
- Rear Curbside Controls
- Dual Guitine Style Doors

Contact Info:

Address : Spaulding Mfg., Inc.
5366 East Rd.
Saginaw, Mi 48601

Phone: 989-777-4550

Fax: 989-777-7430

E-mail: sales@spauldingmfg.com



*Available in 3 Ton also

Spaulding Mfg., Inc.

“MN 1.31”



2 Ton



The MN 1.31 and 2.10 are the latestest Hot Patcher models on the market. These trailers have a unique heated hopper that comes in either 1 - 4 ton sizes, and is equipped with a new state of the art “surrounding exhaust system”. Powered by either deisel or propane, the MN1.31 and the MN 2.10 are revolutionizing the quality, and productivity for patching potholes.

Specification Standard

- Weight 2100 lbs.
- Height..... 70 Inches
- Length..... 144 Inches
- Width..... 78 Inches
- Door Opening..... 101 Inches
- Fuel SoucesDiesel / Propane
- 105,000 BTU Burner
- Easy Replaceable Combustion Chamber
- 12 Volt Electrical System
- Heavy Duty Frame with Continuous Welds
- Large Hopper Opening for Loading
- Rear Curbside Controls
- Dual Guitine Style Doors
- Recessed Lighting



*** Optional hydraulic dumping hopper**

Contact Info:

Address : Spaulding Mfg., Inc.
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Saginaw, Mi 48601

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Fax: 989-777-7430

E-mail: sales@spauldingmfg.com



**CITY OF NOVI, MICHIGAN
PURCHASING DEPARTMENT**

45175 W. TEN MILE RD.
NOVI, MI 48375
(248) 347-0446



**TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT
SIGNATURE FORM**

Bid submitted by:

Name (printed) Clark R. Bushman Title: Vice President of Sales

Company (Legal Registration) Bell Equipment Company

Address 78 Northpointe Drive

City Lake Orion State MI Zip 48359

Telephone 248-370-0000 Fax 248-370-0011

E-mail cbushman@bellequip.com

Signature *Clark R. Bushman* Date 7-29-08

For information on responding to this bid, contact Sue Morianti – Purchasing Manager, at smorianti@cityofnovi.org

Submittal of Bids: Bids must be delivered prior to the due date and time specified above to the City of Novi, Office of the City Clerk, 45175 W. Ten Mile Rd., Novi, Michigan 48375. Bids must be submitted by person or mail. Faxed bids will not be accepted.

THE BID ENVELOPE MUST BE IDENTIFIED WITH THE FULL BID NAME AND DUE DATE.

THIS PAGE MUST BE INCLUDED WITH YOUR PROPOSAL.

NOTICE TO BIDDERS:

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If you obtained this document from a source other than the source indicated, it is recommended that you register on the MITN site, www.govbids.com, and obtain an official copy.

cut# 248 705 1353



**CITY OF NOVI
PROPOSAL FORM**

**TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT**

We the undersigned as bidder, propose to furnish to the City of Novi, according to the conditions and instructions attached hereto and made a part thereof according to the attached terms and conditions.

A. Two (2) New 2-Ton Hot Patchers, Model MN1.31 or Equivalent

Manufacturer Spaulding Mfg. Model MN 1.31

Unit Price \$18,000.00 x **2** = \$36,000.00 Total

****NOTE: ADD \$7,000 PER UNIT IF DUMP OPTION IS DESIRED****

Delivery after receipt of order 95 days

Warranty One year

We acknowledge receipt of the following Addendums:
(please indicate numbers below)

Comments: _____



CITY OF NOVI

**TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT**

SPECIFICATIONS/COMPLIANCE

INTENT

It is the intent of this specification to provide for the purchase of two (2) new and unused trailer patchers. The specification as listed is based upon a Spaulding Manufacturing, Inc. MN 1.31 or equivalent. The **City of Novi's** Public Works Department has evaluated different types of trailer patchers and has determined that this product is best suited for the City's needs in safety, quality, performance, and standardization. This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all trailer patchers will be compared.

In comparing proposals, consideration will not be confined to price only. The successful bidder will be one whose product is judged to best serve the interests of the City when standardization, price, product, safety, quality and delivery are considered. The **City of Novi** reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. A contract will be awarded to the bidder submitting the lowest responsible bid meeting the requirements of this specification.

EQUIVALENT PRODUCT

Bids will be accepted for consideration on any make or model that is equal or superior to the trailer patcher specified. Decisions of equivalency will be at the sole interpretation of the City. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.

All modifications made to the standard production unit described in the manufacturer's brochures must be certified by the manufacturer and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.

GENERAL SPECIFICATIONS OF 2-TON ASPHALT HAULER-DIESEL TRAILER

<u>GENERAL</u>	YES	NO
Single Axle trailer mounted asphalt hauler - 2-Ton capacity	<u>X</u>	_____
Pintle Hitch with 3 inch I.D.	<u>X</u>	_____
LED Tail lights, directional, and stoplights recessed into hopper	<u>X</u>	_____
7-pole flat pin (RV style) plug in connector	<u>X</u>	_____

Electric Brakes on all wheels with battery breakaway

X

6000 lb. heavy wall axle 6000 G.V.W.R.

X

HOPPER

2-Ton Capacity

X

Triple Wall Construction

X

1-1/2 Inch space between material and air walls

X

1-1/2 Inch space between air and ceramic insulation walls

X

Air baffles for heat circulation with a variable exhaust system
with 11 portals on three sides

X

Insulated wall chambers to hold 2" of high heat temperature
Ceramic insulation secure

X

10 gauge center wall connects to floor and divides inside of hopper
Radiate heat from front to back and side to side

X

10 Gauge inner walls baffled

X

12 Gauge outer walls

X

9/16 Inch plate floor baffled heat chambers under floor

X

Work table – 30" off ground

X

Allows full hopper access from the ground

X

Dual 14 x 15 door opening's with quick operation
to open with one hand sliding style guide

X

Automatic action to lock flip action to release

X

Door opening provides full access to 32 1/2 x 35 inches in width of
9/16 plate floor for removing asphalt with shovel from the ground
with heated shoveling plate

X

Continuous welds the full length of the floor bottom, sides,
inside and out of hopper

X

Top loading doors 36 1/2 inches in width and 109 inches to top of
door when fully extended

X

Peak styled doors are sealed and insulated, bushing hinged with grease insert
and removable from hopper. When opened form a funnel for loading

asphalt directly into hopper with no asphalt build up on hop per ledge	X	_____
Steel outer skins framed on square tubing with angle iron reinforced	X	_____
Manually operated retractable handles	X	_____
7 Inch grab handles, solid round stock with no open ends	X	_____
Strobe LED light mounted on top of door for and high visibility	X	_____
Rack for (4) shovels across front of hopper	X	_____

TRAILER

3" OD Axles, rated at 6000# each	X	_____
2-inch wide double eye leaf spring suspension	X	_____
Wheels – heavy duty commercial tires – 235/80/16R	X	_____
8,000 lb. Park Jack with steel landing foot plate 4 x 6	X	_____
Overall length 159 inches	X	_____
Height 72 3/4 inches	X	_____
Width of hopper 80 1/2 inches	X	_____
Weight – 2000lbs. without fuel	X	_____
Safety chains are 70 Grade Transport chains DOT approved	X	_____
3/8 or Clevis Hooks with safety clip	X	_____
Trailer Frame is constructed of 5x2x3/16 wall rectangular tubing with 11"x 19"x 3" deep basket for vibratory roller (expanded metal bottom)	X	_____
4 Cross members on the horizontal and 2 on the vertical	X	_____
Fenders fabricated of heavy steel with full steel skirt 80 inches Wide to outside of each fender	X	_____
Tail lights, LED directional, stop and turn flush to hopper to prevent asphalt build up	X	_____
Gusset construction hitch adjuster	X	_____
Holes for adjusting the height, 19.5" to 34"	X	_____
Expanded metal wire mesh across tongue	X	_____

Spare tire and rim

X

SOLVENT TANK

Solvent tank for shovels located off back fender flush to top of fender with dual flip access doors spring snap latch next to access door and bolts on – holds two shovels

X

Square in Shape 13x13x16 inches

X

11.5 Gallon Capacity

X

12 GA Steel

X

Spring bolt automatic lock drop spill proof lid

X

HEAT SYSTEM

Combustion chamber 100 sq in mounted on to front of hopper

X

X

Removable bottom drop box insulated with inspection cover

In line 10 micron fuel filter connected to 20 gallon bolt on tank with spare filter and 2 nozzles

X

Pressure gauge shows continuous working pressure

X

Fuel solenoids powered by 12-volt system

X

Pressurized pump controls flow of fuel to burner

X

Spark ignition system powered by 12-volt system

X

Automatic shut down system safety feature

X

Cad cell eye monitors flame in burner

X

Spark ignition coil supply to electrodes to ignite fuel

X

X

Power on/off switch in nema 3r lockable box bolted on hopper

Digital snap in thermostat no rewiring shows set temp and actual temp

X

Controlled by a 1/16 Din microprocessor-based auto temp control located at rear of curbside of hopper

X

Interstate deep cycle battery set in battery box ready for recharge system

X

Strobe light mounted on top of rear door and wired to rear control box

X

The entire system and burner shall operate on a single 12 volt battery.	<u> X </u>	_____
A recharging system shall be installed to continuously recharge the battery without the aid of a plug-in charger.	<u> X </u>	_____
A plug-in charger shall also be installed to assist with the overnight charging of the 12 volt battery. (10 amp taper charger)	<u> X </u>	_____
A quick release on/off switch shall disrupt all power to the system.	<u> X </u>	_____
A vented control box shall house the complete system and battery.	<u> X </u>	_____

ELECTRIC OVERNITE HEAT

Three independent 110v heaters	<u> X </u>	_____
One main power switch	<u> X </u>	_____
Automatic temperature control from 0-350 F	<u> X </u>	_____
Heaters are removable and replaceable through a service door	<u> X </u>	_____
One front hopper mount and 2 rear mount burners	<u> X </u>	_____
Metal flip lid to accept 110v plug in for service	<u> X </u>	_____
One indicator light for power and one for safety e-stop red button	<u> X </u>	_____

PAINT

Red as specified	<u> X </u>	_____
All bolt on parts disassemble from chassis to paint	<u> X </u>	_____
All wiring , l.p. parts , regulators etc. Not to be painted	<u> X </u>	_____
All parts and trailer and hopper sandblasted and ground smooth edges	<u> X </u>	_____
Auto primer on all parts and entire unit	<u> X </u>	_____
Two coats of urethane finish topcoat for 6 mil thickness	<u> X </u>	_____

MANUALS

2 – Manuals	<u> X </u>	_____
1 – Year Warranty	<u> X </u>	_____

OPTIONS

Dump Trailer

- Tandem axle trailer frame with 4 – ST235/85/16R tires. The hopper shall tilt at a maximum of a 30 degree angle by means of two 2.5 inch bore and a 14 inch cylinder's which are tied to a 10 inch sub frame. X _____
- Each cylinder collar shall have grease zerts on each end. X _____
- The hopper power up and power down controls shall be located at the rear curbside and allow the operator to control the hopper from 24 inches away. X _____
- Each cylinder shall raise at the same flow rate and only raise the hopper and not an entire sub-frame structure. This function shall have an operator at the control at the rear of the hopper for up and down movement. X _____
- When the rear doors open or close a auditable alarm shall alert all operators. X _____
- The rear unloading doors shall also work by means of a hydraulic cylinder that have grease zerts at both ends and a 2 inch bore and 14 inch stroke. The single operation will allow infinite open and close positions. X _____
- The rear door shall have an auditable alarm when the door moves up or down. X _____
- The rear door shall have a safety stop that alerts the operator of safety precautions. X _____

SERVICE AND TRAINING

Vendors shall have parts and service facility within a reasonable distance from the **City of Novi** Garage. State location and distance. 78 Northpointe Dr., Lake Orion, 30 miles

A qualified technician shall provide complete training to the City personnel at the City Garage. Training shall include safety, operation, maintenance and service. X _____

REFERENCES

Bidder shall state length of time in service as an authorized Dealer and/or Manufacturer for the product being proposed. 4 years

Bidder shall state length of time Manufacturer has been building product being proposed and location of manufacturing facility. 25 years, Saginaw, MI

Bidder shall submit name, address, responsible party and phone number of not less than (5) Michigan based Municipal owners of comparable models to that being offered, who have used such models over a (5) Year span. If none, state so.

1. City of Detroit, Ron Brundidge 313-224-3902
2. City of Grand Rapids, Mark Roberts 616-456-3223
3. City of Rochester Hills, Bruce Halliday, 248-852-5456
4. City of Troy, Tom Rosewarn, 248-680-7288
5. City of Jackson, Greg Lucas 517-768-6060

EXCEPTIONS AND DEVIATIONS

Bidder shall fully describe very variance, exception, and/or deviation. If additional space is needed, please include additional sheets.

Company name Bell Equipment Company

Authorized signature *J Bell* James Bell

Date 7-29-08

July 31, 2008

FILE COPY

TO: City of Novi

FROM: Falcon Road Maintenance Equipment, Inc.

SUBJECT: Asphalt Hot Patcher Bid Opening - 07/31/08

Thank you for the opportunity to participate in your procurement process for two asphalt hot patchers.

Falcon RME is submitting two bids.

Both machines that we are bidding are designed to bring the material to the operator without the use of a dump box.

BID NUMBER	FALCON DESIGN w/o DUMP BOX	NOVI DESIGN w/o DUMP BOX	FALCON DESIGN with DUMP BOX	NOVI DESIGN WITH DUMP BOX
07310108		\$20,395		\$26,145
07310208	\$13,995		\$18,495	

The first bid (07310108) is based on the Novi custom specification with one exception identified below. The unit price is \$20,395 or two units for \$40,790. The unit price for the dump box option is \$5,750. Freight terms are FOB Novi, MI with a delivery date between 60 and 90 days after receipt of the purchase order depending on whether or not the dump box is required.

Exception #1 - Bid 07310108: The Falcon RME patcher is designed to warm asphalt by radiating heat from four walls and the hopper floor, therefore there is no need to vent exhaust from the diesel burner into the hopper.

The second bid (07310208) is based on the Falcon RME design and has a unit price of \$13,995 or two units for \$27,990. The dump box option unit price is \$4,500. Freight terms are FOB Novi, MI with a delivery date of 60 to 90 days depending on whether or not the dump box option is required.

The Falcon asphalt hot patcher in bid 07310208 includes the following exceptions to the Novi specification identified by numbers on the attached sheets.

- #1 - The LED lights are protected from asphalt by a steel enclosure.
- #2 - The Falcon RME patcher is designed to warm asphalt by radiating heat from four walls and the hopper floor, therefore there is no need to vent exhaust from the diesel burner into the hopper.
- #3 - A center duct is not required in Falcon design.
- #4 - Outer walls are 16 gauge.
- #5 - Floor plate is ¼" steel
- #6 - Work table is 27" off the ground
- #7 - Single guillotine-style material metering door with three preset stop positions.
- #8 - Material crossbar is lifted to raise the material metering door.
- #9 - Floor plate is ¼" steel
- #10 - Controls are on front hopper wall.
- #11 - A toggle switch is flipped to turn power on (and off) the burner and the light.
- #12 - Electric overnight heat is not required to keep asphalt heated in the Falcon RME design. This was demonstrated to the satisfaction of the city of Novi during a demonstration on July 9, 2008.
- #13 -- The dump box option requires manual opening.

Should you have any questions, please give me a call at (989) 495-9332.
Thank you,

Mike Groulx, General Manager



120 Waldo Ave. Midland, MI 48642
Phone (989) 495-9332
Fax (989) 495-9342
www.falconrme.com



CITY OF NOVI, MICHIGAN
PURCHASING DEPARTMENT
45175 W. TEN MILE RD.
NOVI, MI 48375
(248) 347-0446

BID# 07310208

FILE COPY

**TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT
SIGNATURE FORM**

Bid submitted by:

Name (printed) Mark Groulx Title: President
Company (Legal Registration) Falcon Road Maintenance Equipment, Inc.
Address 120 Waldo Ave
City Midland State mi Zip 48642
Telephone 989 495 9332 Fax 989 495 9342
E-mail mark_groulx@falconnrme.com
Signature Mark Groulx Date July 31, 2008

For information on responding to this bid, contact Sue Morianti – Purchasing Manager, at smorianti@cityofnovi.org

Submittal of Bids: Bids must be delivered prior to the due date and time specified above to the City of Novi, Office of the City Clerk, 45175 W. Ten Mile Rd., Novi, Michigan 48375. Bids must be submitted by person or mail. Faxed bids will not be accepted.

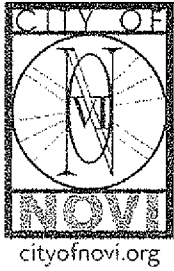
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CITY OF NOVI
PROPOSAL FORM

07310208
FILE COPY

TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT

We the undersigned as bidder, propose to furnish to the City of Novi, according to the conditions and instructions attached hereto and made a part thereof according to the attached terms and conditions.

A. Two (2) New 2-Ton Hot Patchers, Model MN1.31 or Equivalent

Manufacturer Falcon RME Model P2DIXI

Unit Price \$13,995 x 2 = \$ 27,990 Total

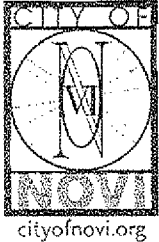
Dump Box Option \$4,500 each

Delivery after receipt of order 60-90 days

Warranty one year warranty - parts and service

We acknowledge receipt of the following Addendums:
(please indicate numbers below)

Comments: Exceptions are numbered on pages 15-19 and described on attached memo.



CITY OF NOVI

07310208

FILE COPY

TWO (2) 2-TON HOT PATCHERS –
SPAULDING MFG. MN 1.31 OR EQUIVALENT

SPECIFICATIONS/COMPLIANCE

INTENT

It is the intent of this specification to provide for the purchase of two (2) new and unused trailer patchers. The specification as listed is based upon a Spaulding Manufacturing, Inc. MN 1.31 or equivalent. The City of Novi's Public Works Department has evaluated different types of trailer patchers and has determined that this product is best suited for the City's needs in safety, quality, performance, and standardization. This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all trailer patchers will be compared.

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EQUIVALENT PRODUCT

Bids will be accepted for consideration on any make or model that is equal or superior to the trailer patcher specified. Decisions of equivalency will be at the sole interpretation of the City. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.

All modifications made to the standard production unit described in the manufacturer's brochures must be certified by the manufacturer and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.

GENERAL SPECIFICATIONS OF 2-TON ASPHALT HAULER-DIESEL TRAILER

GENERAL

	YES	NO
Single Axle trailer mounted asphalt hauler - 2-Ton capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pintle Hitch with 3 inch I.D.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LED Tail lights, directional, and stoplights recessed into hopper	<input type="checkbox"/>	<input checked="" type="checkbox"/> #1
7-pole flat pin (RV style) plug in connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Electric Brakes on all wheels with battery breakaway

6000 lb. heavy wall axle 6000 G.V.W.R.

HOPPER

2-Ton Capacity

Triple Wall Construction

1-1/2 Inch space between material and air walls

1-1/2 Inch space between air and ceramic insulation walls

Air baffles for heat circulation with a variable exhaust system with 11 portals on three sides

#2

Insulated wall chambers to hold 2" of high heat temperature Ceramic insulation secure

10 gauge center wall connects to floor and divides inside of hopper Radiate heat from front to back and side to side

#3

10 Gauge inner walls baffled

12 Gauge outer walls

#4

9/16 Inch plate floor baffled heat chambers under floor

#5

Work table -- 30" off ground

#6

Allows full hopper access from the ground

Dual 14 x 15 door opening's with quick operation to open with one hand sliding style guide

#7

Automatic action to lock flip action to release

#8

Door opening provides full access to 32 1/2 x 35 inches in width of 9/16 plate floor for removing asphalt with shovel from the ground with heated shoveling plate

#9

Continuous welds the full length of the floor bottom, sides, inside and out of hopper

Top loading doors 36 1/2 inches in width and 109 inches to top of door when fully extended

Peak styled doors are sealed and insulated, bushing hinged with grease insert and removable from hopper. When opened form a funnel for loading

- asphalt directly into hopper with no asphalt build up on hopper ledge
- Steel outer skins framed on square tubing with angle iron reinforced
- Manually operated retractable handles
- 7 Inch grab handles, solid round stock with no open ends
- Strobe LED light mounted on top of door for and high visibility
- Rack for (4) shovels across front of hopper

TRAILER

- 3" OD Axles, rated at 6000# each
- 2-inch wide double eye leaf spring suspension
- Wheels – heavy duty commercial tires – 235/80/16R
- 8,000 lb. Park Jack with steel landing foot plate 4 x 6
- Overall length 159 inches
- Height 72 3/4 inches
- Width of hopper 80 1/2 inches
- Weight – 2000lbs. without fuel
- Safety chains are 70 Grade Transport chains DOT approved
- 3/8 or Clevis Hooks with safety clip
- Trailer Frame is constructed of 5x2x3/16 wall rectangular tubing with 11"x 19"x 3" deep basket for vibratory roller (expanded metal bottom)
- 4 Cross members on the horizontal and 2 on the vertical
- Fenders fabricated of heavy steel with full steel skirt 80 inches Wide to outside of each fender
- Tail lights, LED directional, stop and turn flush to hopper to prevent asphalt build up #1
- Gusset construction hitch adjuster
- Holes for adjusting the height, 19.5" to 34"
- Expanded metal wire mesh across tongue

Spare tire and rim

✓ _____

SOLVENT TANK

Solvent tank for shovels located off back fender flush to top of fender with dual flip access doors spring snap latch next to access door and bolts on – holds two shovels

✓ _____

Square in Shape 13x13x16 inches

✓ _____

11.5 Gallon Capacity

✓ _____

12 GA Steel

✓ _____

Spring bolt automatic lock drop spill proof lid

✓ _____

HEAT SYSTEM

Combustion chamber 100 sq in mounted on to front of hopper

✓ _____

Removable bottom drop box insulated with inspection cover

✓ _____

In line 10 micron fuel filter connected to 20 gallon bolt on tank with spare filter and 2 nozzles

✓ _____

Pressure gauge shows continuous working pressure

✓ _____

Fuel solenoids powered by 12-volt system

✓ _____

Pressurized pump controls flow of fuel to burner

✓ _____

Spark ignition system powered by 12-volt system

✓ _____

Automatic shut down system safety feature

✓ _____

Cad cell eye monitors flame in burner

✓ _____

Spark ignition coil supply to electrodes to ignite fuel

✓ _____

Power on/off switch in nema 3r lockable box bolted on hopper

✓ _____

Digital snap in thermostat no rewiring shows set temp and actual temp

✓ _____

Controlled by a 1/16 Din microprocessor-based auto temp control located at rear of curbside of hopper

_____ ✓ #10

Interstate deep cycle battery set in battery box ready for recharge system

✓ _____

Strobe light mounted on top of rear door and wired to rear control box

✓ _____

- The entire system and burner shall operate on a single 12 volt battery. _____
- A recharging system shall be installed to continuously recharge the battery without the aid of a plug-in charger. _____
- A plug-in charger shall also be installed to assist with the overnight charging of the 12 volt battery. (10 amp taper charger) _____
- A quick release on/off switch shall disrupt all power to the system. _____ #11
- A vented control box shall house the complete system and battery. _____

ELECTRIC OVERNITE HEAT

- Three independent 110v heaters _____ #12
- One main power switch _____ #12
- Automatic temperature control from 0-350 F _____ #12
- Heaters are removable and replaceable through a service door _____ #12
- One front hopper mount and 2 rear mount burners _____ #12
- Metal flip lid to accept 110v plug in for service _____ #12
- One indicator light for power and one for safety e-stop red button _____ #12

PAINT

- Red as specified** _____
- All bolt on parts disassemble from chassis to paint _____
- All wiring , l.p. parts , regulators etc. Not to be painted _____
- All parts and trailer and hopper sandblasted and ground smooth edges _____
- Auto primer on all parts and entire unit _____
- Two coats of urethane finish topcoat for 6 mil thickness _____

MANUALS

- 2 – Manuals _____
- 1 – Year Warranty _____

OPTIONS

Dump Trailer

Tandem axle trailer frame with 4 – ST235/85/16R tires. The hopper shall tilt at a maximum of a 30 degree angle by means of two 2.5 inch bore and a 14 inch cylinder's which are tied to a 10 inch sub frame.

✓ _____

Each cylinder collar shall have grease zerts on each end.

✓ _____

The hopper power up and power down controls shall be located at the rear curbside and allow the operator to control the hopper from 24 inches away.

✓ _____

Each cylinder shall raise at the same flow rate and only raise the hopper and not an entire sub-frame structure. This function shall have an operator at the control at the rear of the hopper for up and down movement.

✓ _____

When the rear doors open or close a auditable alarm shall alert all operators.

_____ ✓ #13

The rear unloading doors shall also work by means of a hydraulic cylinder that have grease zerts at both ends and a 2 inch bore and 14 inch stroke. The single operation will allow infinite open and close positions.

_____ ✓ #13

The rear door shall have an auditable alarm when the door moves up or down.

_____ ✓ #13

The rear door shall have a safety stop that alerts the operator of safety precautions.

_____ ✓ #13

SERVICE AND TRAINING

Vendors shall have parts and service facility within a reasonable distance from the City of Novi Garage. State location and distance. Midland MI 110 miles

A qualified technician shall provide complete training to the City personnel at the City Garage. Training shall include safety, operation, maintenance and service.

✓ _____

REFERENCES

Bidder shall state length of time in service as an authorized Dealer and/or Manufacturer for the product being proposed. FOUR YEARS (APRIL 2004)

Bidder shall state length of time Manufacturer has been building product being proposed and location of manufacturing facility. FOUR YEARS MIDLAND MICHIGAN

Bidder shall submit name, address, responsible party and phone number of not less than (5) Michigan based Municipal owners of comparable models to that being offered, who have used such models over a (5) Year span. If none, state so.

1. Michigan DOT / John Knoop / 517 622 5015
2. Westland / Kevin Buford / 734 467 3242 mmy 7/28/08
3. Detroit Metro Airport / Alex Gonzalez / 734 247 7156
4. Flat Rock, MI / Bruce Hammond / 734 782 2470
5. Greenville, MI / Mike Chesser / 616 754 5098

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EXCEPTIONS AND DEVIATIONS

Bidder shall fully describe very variance, exception, and/or deviation. If additional space is needed, please include additional sheets.

exception descriptions on attached memo.

Company name Falcon Road Maintenance Equipment, Inc.

Authorized signature Mark Snow

Date 7/31/08