

Ken R. LaCasse
Public Service Supervisor

651.204.6053 Phone
651.204.6153 Fax
kenneth.lacasse@cityvadnaisheights.com



The City of Vadnais Heights
800 East County Road E
Vadnais Heights, MN 55127

Memorandum:

TO: Mayor Gunderson and City Council Members

FROM: Ken R. LaCasse, Public Service Supervisor
Jesse P. Farrell, City Engineer

DATE: February 18, 2020

SUBJECT: Authorizing the Purchase the Jetter/Vac Truck Replacement

Requested City Council Action

Consider authorizing the purchase of the Vactor 2100i from MacQueen Equipment and a 12 yard debris tank and 1,500 gallons of water on a tandem axle truck chassis at the cost of \$421,363.42. The 2020 Adopted Budget includes \$450,000 for this expense from the Sewer Utility Enterprise Fund which has a current fund balance of approximately \$3,400,000.

Background

If a city has a sewer system it must clean, operate and maintain that system. Sewers carry raw sewage. Raw sewage transmits disease and has a detrimental effect on homes and the environment if a backup should occur. The performance of the sewer collection system is critical to the health and safety of the community. In 1995, the City purchased a Vactor brand combination sewer cleaning machine. It was the first machine of that type that the City had purchased.

The combination machine allowed staff to scour the sewer mains and vacuum debris from manholes. It also is used for lift station wet wells, storm sewer catch basins, water main excavations, and numerous other maintenance activities. This machine has been an absolute workhorse for the City and has allowed us to keep up on our sewer maintenance program and meet the League of MN Cities Insurance Trust standards which states, "Minnesota cities need to exercise reasonable care for sewer systems to avoid sewer back-up liability. This means cities must establish an inspection and maintenance program and emergency procedures". The Vactor is now 25 years old and has reached the end of its useful life as an emergency vehicle.

This piece of equipment is an emergency response vehicle. It is full of water and ready to respond 24/7. It is the most important vehicle in the Public Works Department fleet. If a sewer backup should occur, City crews and the public need to know that help is on the way before a home or multiple homes become involved. This is also true with storm water backups that can threaten property. Staff have experienced significant down time with the City's current truck being sent out for repair many times over the past 5 years even though it was refurbished in 2011 (it was 15 years old at that time). Since 2015, there has been a steady increase in the amount of funds necessary to keep it going.

Vactor 2100i

- Positive displacement pump to suck debris in the hopper. This pump is a better choice for its versatility and use in heavy soils, sludge, and Hydro excavating.
- Stainless steel tanks
- Single engine, Quieter, more fuel efficient
- Ease of operation, Display at the front real and wireless remote.
- Cameras in front and back for safety.
- All warning lights and work lights included.
- Crew training provided
- Two Day Mechanic training provided in Illinois.
- Local parts and service.

Vac-Con V290

- 3 stage fan is used to vacuum material into the hopper. Good for jetting and light material.
- 2 engines, one is used to power the chassis and hydraulics. The rear engine runs jetting and vacuum functions. Chassis engine is Diesel and the pony engine is gas powered.
- Plastic fuel tanks but the mounts are subject to rust through.
- Operating system and remote are not as user friendly.
- Operator training provided.
- ABM located in Hopkins.
- Service truck available.
- Cameras and warning lights included.

The Combination Jetter Vacuum machines evaluated for final consideration by the Council were:

Vac-con from ABM Equipment, Hopkins, MN.	\$413,218.00
Vactor 2100i from MacQueen Equipment, St. Paul, MN.	\$421,363.42

These are both good machines for general jetting work. Where the machines differ is in their versatility, usability and maintainability, both come fully equipped. City staff recommends purchase of the Vactor 2100i from MacQueen Equipment. MacQueen Equipment has put together a good package with many safety features and accessories included. The operating system is simple to use for day and nighttime emergencies. They have offered a fair trade for our 25 year old machine and operator as well as two-day out of town mechanic training is included.

With this purchase, staff will also be asking for a larger debris tank and water capacity. The debris tank is 5 yards on the current truck and has been patched. Parts of the tank are very thin, so it could not be used on any new chassis. Staff are asking for a 12 yard debris tank and 1,500 gallons of water on a tandem axle truck chassis. This will allow crews to work longer in the field without the need to empty the hopper or fill the tanks as often.

Attachments: February 4, 2020 memo to the City Council
Quotes from ABM Equipment and MacQueen Equipment

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Public Service Supervisor

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Background

If a city has a sewer system it must clean, operate and maintain that system. Sewers carry raw sewage. Raw sewage transmits disease and has a detrimental effect on homes and the environment if a backup should occur. The performance of the sewer collection system is critical to the health and safety of the community. In 1995, the City purchased a Vactor brand combination sewer cleaning machine. It was the first machine of that type that the City had purchased. Prior to that purchase, City staff used a rodder machine which was slow and does not scour the pipe. Crews had to climb into structures and use buckets to haul out sewage laden debris.

The combination machine allowed staff to scour the sewer mains and vacuum debris from manholes. It also is used for lift station wet wells, storm sewer catch basins, water main excavations, and numerous other maintenance activities. This machine has been an absolute workhorse for the City and has allowed us to keep up on our sewer maintenance program and meet the League of MN Cities Insurance Trust standards which states, "Minnesota cities need to exercise reasonable care for sewer systems to avoid sewer back-up liability. This means cities must establish an inspection and maintenance program and emergency procedures". The Vactor is now 25 years old and has reached the end of its useful life as an emergency vehicle. The existing chassis and jetter vacuum equipment are too old and worn out to continue in service. It is inefficient, unreliable and dangerous to operate. Breakdowns are frequent and it is only a matter of time that its poor condition will lead to problems that could have been prevented.

This piece of equipment is an emergency response vehicle. It is full of water and ready to respond 24/7. It is the Public Works Departments equivalent to a Firetruck. It is the most important vehicle in our fleet. If a sewer backup should occur, City crews and the Public need to know that help is on the way before a home or multiple homes become involved. This is also true with storm water backups that can threaten property. We have experienced significant down time with our current truck being sent out for repair many times over the past 5 years even though it was refurbished in 2011 (it was 15 years old at that time). Refurbish work in 2011 bought us 3 years of service. Since 2015, there has been a steady increase in the amount of funds necessary to keep it going. See below list of what has been spent on repairs over the past 5 years:

2015	\$ 2,000.00
2016	\$ 2,500.00
2017	\$ 3,800.00
2018	\$18,300.00
2019	\$ 7,400.00

The truck has reached a phase of what you would call “nickle and dimming the operating budget to death”

Most cities choose to replace their Sewer combination machines at 15 years because of its critical function. City staff choose to refurbish the truck at that time to get some additional years of service. Several components were rebuilt or replaced at that time. It received a new engine in 2014. The rodder pump has been rebuilt twice. Other issues have begun to show up as well causing significant down time. Please see notes below from City Mechanic Ryan Williams.

The City maintains over 54 miles of sanitary sewer pipe and 1254 manholes. For maintenance purposes the system is divided into 4 precincts. Each precinct is cleaned on a rotation of once every 4 years per League of Minnesota guidelines. Sewer lines that have had problems or frequent plugs are deemed “Problem sewers” and are flushed/jetted monthly. This is just part of our sewer maintenance program. Jetting reduces the risk of obstructions in the pipe. According to the League of MN Cities, more than 63 percent of paid claims are for obstructions in the sewer line causing a backup. The second most prevalent and costly cause of sewer backups was lift station problems/failures. A failure of this type occurred on January 10th 2019. We used the Jet/Vac to keep the sewage from backing up into homes until a contractor could arrive with a pump truck. Sewage likely would have backed up into multiple homes absent our efforts that night, because private contractors were not available for over 6 hours, despite the fact we contacted seven different “24/7” service providers.

A sewer backup into a home can be devastating to the home owner and costly to the City if the City is found to be at fault. A sewer backup often results in mitigation of the home interior. When raw sewage comes in contact with any porous surfaces, in almost all instances those surfaces will need to be removed and disposed of including furniture, walls and carpet. Beyond the damage, severe disruption, and expense, the customer’s faith in the city is often irreparable.

The City maintains over 24 miles of storm sewer pipe. The City’s many catch basins and ends require frequent cleaning. Storm pipe that is frozen during severe winters, such as the winter of 2018/2019, required many hours of jetting to open them up. Many homeowners were spared the rising waters in their backyards due to the crew’s ability to respond. Having a jet/vac combination machine has saved the City and its resident’s money in claims and property damage.

Many improvements have been made in 25 years. New units, by comparison, are fuel efficient reducing fuel usage. They have a significantly stronger suction capacity and hopper size. Larger pumps and water capacity will allow crews to stay afield longer. User interface has made dramatic improvements. During recent water main breaks, hydro excavation has been used to work around utilities and unearth water main. Hydro excavation is becoming increasingly important due to the amount of buried utilities. The new machine will have the ability to hydro excavate.

The Combination Jetter Vacuum machines evaluated for final consideration by the Council were:

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These are both good machines for general jetting work. Where the machines differ is in their versatility, usability and maintainability, both come fully equipped. City staff recommends purchase of the Vactor 2100i from MacQueen Equipment.

Vactor 2100i

- Positive displacement pump to suck debris in the hopper. This pump is a better choice for its versatility and use in heavy soils, sludge, and Hydro excavating.
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- Ease of operation, Display at the front real and wireless remote.
- Cameras in front and back for safety.
- All warning lights and work lights included.
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Vac-Con V290

- 3 stage fan is used to vacuum material into the hopper. Good for jetting and light material.
- 2 engines, one is used to power the chassis and hydraulics. The rear engine runs jetting and vacuum functions. Chassis engine is Diesel and the pony engine is gas powered.
- Plastic fuel tanks but the mounts are subject to rust through.
- Operating system and remote are not as user friendly.
- Operator training provided.
- ABM located in Hopkins.
- Service truck available.
- Cameras and warning lights included.

MacQueen Equipment has put together a good package with many safety features and accessories included. The operating system is simple to use for day and nighttime emergencies. They have offered a fair trade for our 25 year old machine. Operator training is included. Two-day out of town mechanic training is provided. Both machines are user friendly with the edge going to Vactor with its electronic package to monitor pressures, water level, footage counter and wireless remote. Hopefully we can always count on long term employees, but the trend of employees changing jobs much more frequently than in the past makes ease of operation and training that much more important to maintaining current service levels.

Our current Vactor has lasted 25 years. That is a strong statement for the Vactor Company and for City crews care and maintenance practices. Local cities that we have contacted aim to replace their Jetting trucks every 10 to 15 years, or are sometimes purchasing two machines. One for sanitary sewer work and one for storm water and hydro excavating. At this time that is not feasible for the City of Vadnais Heights so the flexibility of the Vactor 2100i is very important for ongoing operations.

Keep in mind that 25 years has passed since this truck was put together. The City has grown and the need for a larger truck has become evident. With a reduced city crew, more time afield and reliable

equipment becomes extremely important. Unlike contractors, city crews are restricted to 8 hour shifts. Any down time equates directly to lost time afield. Any lack of production is hard to make up with demands for street patching, mowing and road projects.

With this purchase, staff will also be asking for a larger debris tank and water capacity. The debris tank is 5 yards on the current truck and has been patched. Parts of the tank are very thin, so it could not be used on any new chassis. Staff are asking for a 12 yard debris tank and 1,500 gallons of water on a tandem axle truck chassis. This will allow crews to work longer in the field without the need to empty the hopper or fill the tanks as often. The upsized hopper and water tanks would make the current single axle chassis overweight and illegal to operate on public roads. The equipment that is on the old chassis is worn out. The fan does not provide the needed lift to vacuum water from the lift station and lacks the ability to hydro excavate. Last January, staff could only maintain the level of the water by skimming the top until a pump truck from Olson sewer arrived. The jetting pump has only enough pressure to go out 100 feet. We should be able to jet 400 to 600 feet at a time. City crews have not been able to complete the jetting district for 2019, due to the down time and lack of performance. Refurbishing in 2011 was a bandage.

The 2020 Adopted Budget includes \$450,000 for this expense, using the Sewer Utility Enterprise Fund which has a current fund balance of approximately \$3,400,000.

City staff recommends purchase of the Vactor 2100i from MacQueen Equipment. It is the number one priority for 2020.

Notes from Ryan Williams, City Mechanic

From a mechanical stand point, my opinion is that this truck has become very unreliable. It has consistently more break downs, and when it does break down, the repairs are costly and require considerable down time. The truck was wore out when we had it refurbished in 2011. It is a very critical piece of equipment, in an emergency situation. Because things are becoming more worn, we are basically at the point that we are chasing problems around the truck. With the increased sewer maintenance in the City, this truck is not able to provide consistent reliable service. The new trucks have more capacity for waste and for water, they are also safer because the main truck engine doesn't have to be running to use it so you can hear if there are cars coming up on you. The new controls are remote so it gets you back from the manhole a little. If the lift station goes down this truck can actually keep up with it.

Jet Vac truck #117 model year 1996 mileage 18760 rating 41.

This truck has had extensive repairs. It was refurbished 10 years ago at a cost of about \$28,000 and last year, the holding tank had to be rebuilt at a cost of about \$8,000. The jetting system on the truck has continuous issues, it has been in the shop 5 times for the same issue, and they cannot seem to figure out what is wrong with it. The issue is the pump can no longer consistently hold pressure which doesn't allow the nozzle to travel as far down the pipe. The nozzle used to be able to make it about 600 feet out and now they can only make it about 200 feet which in turn requires the guys to bring it back in drive to the next manhole and drop it from there. This truck is at the age that any repair becomes very costly and could fail at any time, and often does.



333 2nd Street NE
Hopkins, MN 55343-8337
952-938-5451
Fax: 952-938-0159
www.abmequip.com

Quote / Order # 121019-437-02 Page 1
Date Issued: 01/29/20
Quote Expires On:
Salesman: S. Reiersen

Custom Truck Equipment For The Utility, Construction, Municipal And Refuse Industries

City of Vadnais Heights
800 East Co. Road E
Vadnais Heights, MN 55127

Terms:
PO #:
Phone: 651-204-6053
Fax:
E-mail:

Attn: Mr. Ken LaCasse

Qty.	Description	Unit Price
	2019 Vac-Con Sewer Cleaner per State of Minnesota Contract # 139816	
1.0	Price for base unit - Vac-Con V290	\$165,983.00
2.2	11 cubic yard on tandem axle	\$10,296.00
2.4	Automatic debris body washout system	\$2,022.00
3.2	Level indicator	STANDARD
3.3	Automatic Vacuum Breaker - The automatic vacuum braker assembly is located inside the body. A full indication activates an automatic vacuum breaker shut down system that completely shuts down 100% of the airflow to the vacuum system to prevent body overfilling and wastewater discharge into the atmosphere. The vacuum breaker system is automatically activated (closed) when the parking brake system is released to eliminate carryover during transit. The system is also controlled, activated, at the front hose reel control station and pendant control. This feature enables the operator to pick up large debris with boom and place debris on the road surface. This system is used for safety in the even suction must be shut off in case of an emergency.	STANDARD
3.4	3 Stage Vacuum Compressor - A maximum of 27" diameter and of 3 stage construction (i.e. 3-27" minimum diameter fans in tandem). System is capable of vacuuming under water 16.5' (200") without special attachments and a maximum of 8000 cfm. A centrifugal separator located in the inlet chamber to the fans without clean out box is provided. The separator removes particles from the air stream, thus enabling the unit to vacuum wet or dry material. The separator is separate from the debris body. Centrifugal compressor fans have a five-year non pro-rated replacement warranty.	\$10,207.00
3.5	Compressor fan flush out system	\$1,253.00
3.6	Auto lube for centrifugal fan	\$2,880.00
3.7	Hydrostatic blower drive	\$10,165.00
4.2	10' telescoping boom 8" inlet	\$14,252.00
4.8	8" adjustable air gap (for underwater vacuuming)	\$489.00
4.10	Wireless remote system	\$4,836.00
4.11	Omni Bus System	\$5,716.00
5.4	50 gpm/3000 psi	NO CHARGE

DISCLAIMERS

Any warranties on the products sold hereby are those of the manufacturer. As between this retail seller and buyer, all products are sold in an AS IS condition. The entire risk as the quality of the product is with the buyer. Seller does expressly refrain from making any representation or warranties and does hereby disclaim any and all warranties, express or implied. Including any implied warranty of merchantability or fitness for a particular purpose, whether arising from statute, common law, custom or otherwise. The remedy set forth in this agreement shall be the exclusive remedy available to any person. No person has the authority to bind the seller to any representation or warranty other than this disclaimer. This disclaimer by this seller in no way affects the terms of the manufacturer's warranty. The seller shall not be liable for any consequential damages resulting from the use of this product or caused by any defect, failure or malfunction of any product, whether a claim for such damage is based upon warranty, contract, negligence or otherwise. The seller shall not be liable for any loss of profit, wages, earnings, employment, contracts or otherwise. The buyer acknowledges being informed of the above disclaimer prior to sale.

Acceptance Signature: _____

Print Name: _____

Date: _____

Seller Acceptance: _____



333 2nd Street NE
Hopkins, MN 55343-8337
952-938-5451
Fax: 952-938-0159
www.abmequip.com

Quote / Order # 121019-437-02 Page 2
Date Issued: 01/29/20
Quote Expires On:
Salesman: S. Reiersen

Custom Truck Equipment For The Utility, Construction, Municipal And Refuse Industries

City of Vadnais Heights
800 East Co. Road E
Vadnais Heights, MN 55127

Terms:
PO #:
Phone: 651-204-6053
Fax:
E-mail:

Attn: Mr. Ken LaCasse

Qty.	Description	Unit Price
	180 Degree Articulating Hose Reel - The hose reel is hydraulically powered in both directions by means of a double chain and sprocket drive. The controls for operating the motor have a flow control device to regulate the rotational speed of the reel in both directions. All hydraulic hoses are behind a steel housing to protect operator from hydraulic oil if a hose fails. The hose reel will articulate 180 allowing operator to work in any position through this arc. This allows greater flexibility in truck placement for man holes located in tough areas and provides greater safety to the operator.	\$14,086.00
6.4	Power level wind	\$5,072.00
6.5	Footage counter	STANDARD
7.3	Upgrade to 1500 gallons water capacity	\$11,513.00
7.5	Hand gun cleaning system	STANDARD
7.6	Hand gun hose reel (50' capacity with 50' hose)	\$2,135.00
7.7	Hand gun hook-ups (std: psg side mid-section)	STANDARD
7.22	Water pump remote oil drain	\$282.00
8.1	Two (2) 13" x 16" x 72" boxes	STANDARD
8.4	16" x 42" x 96" storage box behind cab	STANDARD
8.9	Dual roll out shelves	\$1,662.00
9.3	6" knife valve in lieu of 5" butterfly valve (rear)	\$764.00
9.8	Gravity Drain System - Plumbed to drivers side in front of door step, allowing return of liquids to manhole without having to reposition vehicle	\$1,960.00
9.10	Air purge system	\$872.00
9.12	Pretank water filter (y-type)	\$868.00
9.13	2 1/2" water drain gate valve	\$307.00
9.15	Variable flow valve	\$450.00
9.18	Lazy Susan style pipe rack (holds 5 pipe)	\$2,674.00
9.20	Folding pipe rack (3), curbside (Hydraulic)	\$2,909.00
9.22	Mirror mounted strobe lights (2 @ \$965 ea)	\$1,930.00
9.28	Arrowstick - LED	\$2,931.00
9.31	4) strobes, 2 rear stop/turn/tail lights, 2 front turn signals (LED) - mounted in bumpers	\$1,990.00
9.38	Hand held LED spotlight with retractable cord	\$1,099.00
9.38	LED boom mounted flood lights (2)	\$765.00

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Acceptance Signature: _____

Print Name: _____

Date: _____

Seller Acceptance: _____



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Quote / Order # 121019-437-02 Page 3
Date Issued: 01/29/20
Quote Expires On:
Salesman: S. Reiersen

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City of Vadnais Heights
800 East Co. Road E
Vadnais Heights, MN 55127

Terms:
PO #:
Phone: 651-204-6053
Fax:
E-mail:

Attn: Mr. Ken LaCasse

Qty.	Description	Unit Price
9.39	LED rear mounted lights	\$765.00
9.40	LED flood light - water pump area	\$433.00
9.41	LED flood light - level wind area	\$433.00
9.43	Electronic backup alarm	\$285.00
9.45	Rear vision camera system	\$1,862.00
9.48	Debris body splash shield - 4 to 8 o'clock	\$1,968.00
9.59	Hydroexcavation package, 50' hand gun reel, 3000 psi capacity with unloader valve and hand wand	\$6,624.00
9.64	Rear mounted tow hooks	\$368.00
9.65	Auxiliary engine remote oil drain	\$288.00
9.66	Remote grease zerks for telescoping boom	\$2,487.00
9.67	Remote grease zerks for debris tank (excludes rollers & cams)	\$2,680.00
9.68	Remote grease zerks for articulating hose reel	\$1,148.00
9.69	Auto lube for body (must include 9.67, 9.68, & 9.69)	\$5,512.00
9.79	Reflective striping: white	STANDARD
9.84	No paint on hoses or wires	STANDARD
9.87	600' x 3/4" jet hose on reel ilo 400' (3000/7500)	\$929.00
9.97	Auxiliary engine remote oil drain	\$4,809.00
9.99	2020 Freightliner 114SD 4x2 66,000 GVW ISL 370 HP 3000 RDS	\$103,000.00
0.0	Remote engine start	\$3,262.00
0.0	Flat style rear door	\$5,619.00
0.0	Reinforced elbow (wear back)	\$1,149.00
0.0	Second camera at front reel	\$568.00
0.0	Long handle PVC Storage	\$541.00
0.0	Paint hood flat black	\$825.00
0.0	ENZ Bulldog Nozzle	\$3,600.00
0.0	Trade-In: 1996 L-8000 chassis with Vactor Body	-\$25,000.00
	6.5% MN Sales Tax on Chassis	\$6,695.00
	TOTAL	\$413,218.00
ABOVE PRICES DO NOT INCLUDE ANY APPLICABLE TAXES		

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Acceptance Signature: _____

Print Name: _____

Date: _____

Seller Acceptance: _____

POWERFULLY PRECISE, SUPERIOR PERFORMANCE.

DUAL ENGINE COMBINATION MACHINE



VAC-CON
MORE POWER TO YOU



MACQUEEN
EQUIPMENT



MACQUEEN
EMERGENCY

1125 7th Street E

St Paul, MN 55106

651-645-5726 • 800-832-6417

Ship To: IN STORE PICKUP

Invoice To: CITY OF VADNAIS HEIGHTS
800 EAST COUNTY ROAD E
VADNAIS HEIGHTS MN 55127

Branch 01 - MACQUEEN EQUIP		
Date 01/29/2020	Time 8:58:29 (O)	Page 1
Account No VADNA001	Phone No 6512046000	Est No 03 Q01583
Ship Via		Purchase Order
Tax ID No		
JUDD GENEREAUX		Salesperson 126

EQUIPMENT ESTIMATE - NOT AN INVOICE

Description ** Q U O T E ** EXPIRY DATE: 02/26/2020 Amount

Stock #: C006382 Serial #: 19-10V-18845 337025.00

New 2019 VA 2100 PD 15YD

New 2019 VACTOR 2100 PD 15YD VACTOR 2100 PD 15YD

PRICING BSAED OFF MINNESOTA STATE CONTRACT #139888

BASE UNIT

12 YD, PD BODY

6" BUTTERFLY VALVE

2-FOLDING PIPE RACKS

REAR DOOR SPLASH SHIELD

LUBE MANIFOLD

2-CAMERA SYSTEM

CYCLONES

FRONT BLOWER ENGAGEMENT

16" BLOWER

10' BOOM

BELLY PACK WIRELESS REMOTE

HYDROEX KIT (HI PRESSURE)

HI PRESSURE HOSE REEEL

AUTO WIND GUIDE

1500 GALLON WATER

FRONT BUIMPER TOOL BOXES

CURBSIDE SIDE CHASSIS FRAME TOOL BOX

FS DOT 6 LIGHT PACKAGE

WORKLIGHTS ON BOOM

2-WORKLIGHTS, REEL AND OPERATOR STATION

WIRELESS SPOTLIGHT

REAR ARROWBOARD

FREIGHT, PDI & TRAINING INCLUDED

Sale # 01 Subtotal: 337025.00

TOTAL: 337025.00

VisitUsOnline
www.macqueengroup.com



MACQUEEN
EQUIPMENT



MACQUEEN
EMERGENCY

1125 7th Street E
St Paul, MN 55106

651-645-5726 • 800-832-6417

Ship To: IN STORE PICKUP

Invoice To: CITY OF VADNAIS HEIGHTS
800 EAST COUNTY ROAD E
VADNAIS HEIGHTS MN 55127

Branch 01 - MACQUEEN EQUIP		
Date 01/29/2020	Time 8:58:29 (O)	Page 2
Account No VADNA001	Phone No 6512046000	Est No 03 Q01583
Ship Via		Purchase Order
Tax ID No		
JUDD GENEREAUX		Salesperson 126

EQUIPMENT ESTIMATE - NOT AN INVOICE

Description ** Q U O T E ** EXPIRY DATE: 02/26/2020 Amount

2020 PETERBUILT 348, 370 HP, AUTO, TANDEM 104191.00

Sale # 02 Subtotal: 104191.00
Vehicle Tax: 6772.42
TOTAL: 110963.42

Trade Ins
=====

Serial #: V 25000.00-
1998 VACTOR

Trade In Total: 25000.00-

Subtotal: 416216.00
Vehicle Tax: 5147.42
Quote Total: 421363.42

Authorization: _____



Vactor 2100i

Vector Standard Features on Minnesota State Contract:

Single engine design:

-quieter, simpler, more fuel efficient

Intelliview control system at hosereel

Digital footage counter

Digital water level

Digital pressure gauge

Wireless remote, full function

Rear vision camera

Hydraulic shut offs

Vacuum breaker at hose reel

80gpm/2500psi water pump-can run dry

Quick disconnect on boom inlet hose

Telescopic, Rotating hosereel (15" x 270 degrees)

800' capacity, 600' Piranha hose, with 10" leader

Vacuum relief from hosereel

Auto wind guide for hose

Anti-splash valve in debris body

Hi pressure wash down system (up to 20gpm @ 2500psi)

Tachometer at hosereel

Hour meter for PTO at hosereel

Hour meter for water pump at hosereel

Stainless Steel water tanks

Debris body washout

Powered, flat rear door with hydraulic locks

Debris deflector in body

Boom storage post

Boom joystick control at hosereel

Cold weather recirculator

Rodder accumulator

3" Y-strainer at fill and pump

600' hose, with 10' leader hose

Tiger tail

3 nozzles with carbide inserts

Relief valve for water pump and handgun

Side and rear pipe racks

PD blower microstrainer, final filter

Back up alarm, flare kit, fire extinguisher

Low water alarm

4 sections of pipe and nozzle

Hydraulic oil alarm (hi temp, low level)

Paper and electronic manual

Imron paint, primer base

Rear tow hooks

Debris body level indicator

Hydraulic backup system (in case of failure components can be brought to home position)

48" curbside tool box

LED lighting, Vector and chassis

Freight, PDI, Delivery & complete operations and maintenance training.

Factor training for operations and maintenance.

DCDPC / Fleet CEP Points Replacement Guidelines

Factor	Points	
Age	One point for each year of chronological age, based on in-service date.	
Miles/Hours	On Road Vehicles and Equipment One point for each 10,000 miles Off Road Equipment One point for each 1000 hours of use on over 150 horsepower diesel engines or One point for each 200 hours of use on under 150 horsepower diesel engines	
Type of Service	1, 3 or 5 points are assigned based on the type of service that vehicle receives. For instance, a police patrol car would be given a 5 because it is in severe duty service. In contrast, an administrative sedan would be given a 1.	
Reliability	Points are assigned as 1, 3, or 5 depending on the frequency that a vehicle is in the shop for repairs. A 5 would be assigned to a vehicle that is in the shop two or more times per month on average, while a 1 would be assigned to a vehicle in the shop an average of once every three months or less.	
Maintenance & Repair Costs	1 to 5 points are assigned based on total like M&R costs (not including repair of accident damage). A 5 is assigned to a vehicle with life M&R costs equal to or greater than the vehicle's original purchase price, while a 1 is given to a vehicle with life M&R costs equal to 20% or less of its original purchase cost.	
Condition	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, etc. A scale of 1 to 5 points is used with 5 being poor condition.	
Point Ranges		
Under 18 points	Condition I	Excellent
18 to 22 points	Condition II	Good
23 to 27 points	Condition III	Qualifies for replacement
28 points and above	Condition IV	Needs immediate consideration

DCDPC Examples:

As an example of the application of the above points system, the prime mover is ten years old and has 80,000 miles, is in good condition, has good reliability, and has repair costs less than 20% of its purchase price. Points would be assigned as follows:

- Age = 10 points
- Mileage = 8 points
- Type of service (severe) = 3 points
- Reliability = 1 points
- M&R costs = 1 points
- Condition = 1 points
- Total = 24 points

The white rescue style truck is twenty years old and has 20,000 miles, is in good condition, has good reliability, and has repair costs less than 20% of its purchase price.

Points would be assigned as follows:

- Age = 20 points
- Mileage = 2 points
- Type of service (severe) = 3 points
- Reliability = 1 points
- M&R costs = 1 points
- Condition = 1 points
- Total = 28 points

**Dakota County Domestic Preparedness Committee
Capital Equipment Program (CEP) Policy**

In an effort to allow for better planning and managing of all equipment purchases, the Dakota County Domestic Preparedness Committee has adopted this Capital Equipment Program Policy. The program is funded primarily through grants, supplemented as defined in the Fund Balance Policy. The CEP is intended for all items, not limited to only major capital items.

The purpose of the Capital Equipment Program is to:

- Identify capital equipment replacement needs within the next five years to support existing and future services;
- Establish a coherent CEP development process that increases the opportunity to secure funds and grants from outside sources;
- Promote more efficient and coordinated capital expenditures;
- Establish the priority of capital projects;
- Improve the effectiveness of capital planning and budgeting; and
- Determine methods of financing capital projects.

The Capital Equipment Program includes:

The Domestic Preparedness Committee will complete a Capital Equipment Plan for the next five year period by no later than the end of each calendar year.

The following criteria will be used as a guide for determining the replacement schedule for capital equipment:

1. DCDPC / Fleet CEP Points Replacement Guidelines (see below) related to vehicles and trailers
2. Replacement guidelines for non-vehicle engine powered equipment
 - a. Small engine powered equipment begin replacing at 10 years, if in good condition
 - b. Goal is to be operating equipment less than 15 years old
3. Replacement guidelines for general equipment vary depending upon the types and kind of equipment.
 - a. Common replacement schedules will be referenced when applicable
 - i. Computers and peripherals replaced every 4 years
 - ii. Self Contained Breathing Apparatus life span is a maximum 15 years; new standards may require earlier replacement.
 - b. Essentially all equipment will need to be evaluated separately with consideration given to age; condition; commonality of components with other existing equipment; industry standards; and item specific characteristics.

On-going operation and maintenance costs are not considered capital costs. These should be developed and included in the annual operating budget.









