



Meeting: Village Board
Meeting Date: 11/12/2012
Agenda Item: #6e

Mission Statement
 Delivering quality services in a courteous, cost-effective and efficient manner.

VILLAGE BOARD MEETING STAFF REPORT

REPORT TO: Burt R. McIntyre, President
 Village Board of Trustees

REPORT FROM: Geoffrey S. Farr, PE, Director of Public Works

AGENDA ITEM: Review and take action on the purchase of narrow band radio equipment for Public Works

POLICY ISSUE

Should the Village Board approve the purchase of narrow band equipment?

BACKGROUND INFORMATION

The Village Public Works Department needs radios for communication, data acquisition, and staff management during regular and emergency work operations. Two examples of these types of situations could include routine snow plowing or emergency management clean up response during or following a significant storm or natural disaster. The mobile radios are typically installed in vehicles, trucks and other equipment. Portable radios are also used during parades and other work situations. Drivers with Commercial Drivers Licenses (CDLs) are not permitted to use cellular phones while operating vehicles; however use of radios is permitted. Also cell phones cannot be relied upon for emergency communications during natural disasters as cell towers may not have backup power, run out of fuel, become damaged or jammed with phone calls.

All public works radios are wideband and will become obsolete December 31, 2012. Narrowband radio equipment needs to be installed and ready for use by January 1, 2013.

The narrow band radio bids are as follows:

	<u>Baycom</u>	<u>Nielson Communications</u>
• Portable Radio Model	Moto XPR6550	Hytera PD782G-V1
• Mobile Radio Model	MotoXPR4550	Hytera MD782G-V1
• FCC Licensing	\$300	\$0
• 6 Portables	\$4,188	\$4,056
• 33 Mobiles, one antenna	\$18,278	\$19,637
• Base station, Remotes and speakers	\$5,299	\$3,568
• Repeater and radio software	\$9,598	\$9,068
• Rack charger	\$455	\$399
• Salvage credit	(\$1,800)	(80% of sold value not in total price)
• Warranty	2 year	5 year radios, 2 year repeater
• General bid compliance?	Yes	Yes
Total Base Package	\$36,318	\$36,728

After factoring in some salvage value the price difference is negligible to lower with Nielson. The Hytera product also has a 5-year warranty, some features that make them compatible with other manufacturers' radios, larger color display, slightly smaller size, and other features that give that product an edge.

On a related topic, Trustee Steffen requested that staff investigate a means by which to allow the public to see the progress of plowing operations. Very few municipalities offer such a customer service in the United States – none in Wisconsin that I am aware of. It will be possible to accomplish this because the Village already tracks vehicles utilizing GPS as a management tool and the new radio system will replace our outdated system. GPS information would be collected and be processed for display and be made available on a website that could be accessed by the public. The concept for the website would allow the public to view historical vehicle locations by displaying trace lines, similar to leaving a trail of bread crumbs behind each vehicle. Thus the progress of clearing operations can be interpreted by the public by seeing trace lines that would cover each street updating say every 15 minutes. Eventually all streets would be traced over signaling that snow plowing is completed and the website would be shut down until the next major snow event.

Use of this feature would only make sense for viewing by the public during events where the entire Village is cleared of snow or ice over a 6- to 24-hour timeframe. Use of the website during small events or routine plowing operations would only show clearing on priority streets in the Village (not all streets) or parts of the Village over a period of days and weeks and become meaningless. Only 5 to 10 significant snow plowing events occur over a typical winter and use of the website would thus be somewhat limited. Normally the website would be “inactive” and the portal will display an inactive message. In the event that significant snow accumulations occur such that snow will be removed throughout the entire Village, the snowplow portal would be “activated” for public viewing.

While this would certainly be a nice customer service, it will not clear more snow and will likely create unintended side effects including added pressure to reduce response times which will increase snow removal costs in a time of tight budgets. The tracker will generate questions and criticism that may be difficult to explain to the public. For example the Village has more than 10 different snowplow route packages that change in response to the magnitude and duration of a given storm event. Other factors that affect snowplow response include storm event start time, end time, type of precipitation, air temperature, pavement temperature, pavement moisture and humidity. As a result it will be impossible for residents to know when they will be plowed out and why. They would only be able to watch and see what has already been “driven by” and see what hasn’t been “driven by”. They will have no idea why we have a certain number of plows out, why plows stop, start, turn this way or that, are refueling, changing shifts, repeat certain streets over and over, why the Village doesn’t put more plows on the road all night long, and why their neighborhood is not first. Why not put all the trucks out on every storm to just get the plowing done quicker? The simple answer is that it costs more to do that.

The Village has a very good record of snow removal:

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Streets cleared of snow within 24 hrs	100%	100%	100%	100%	100%	95%	100%	83%	100%
Streets cleared of snow within 12 hrs	100%	100%	100%	100%	100%	86%	75%	75%	100%

The City of Chicago is the only government that I am aware of that offers this type of service. Chicago’s website is limited and only shows the current location of a truck and does not include historical trace line locations; therefore people cannot visualize progress and it’s of little value. My initial investigation has indicated that the website development would cost about \$15K- \$20K w/o annual maintenance fees or \$6,500 plus \$1,800 annually. I encourage you to visit the following web

sites, watch the videos, read the articles and review the associated comments many of which are negative.

<http://www.cityofchicago.org/city/en/depts/mayor/snowportal/chicagoshovels.html>

<http://www.youtube.com/watch?v=YCK-6Mmep50>

<http://www.nbcchicago.com/weather/stories/Chicago-Snow-Shovel-Website-Rahm-136588358.html>

<http://www.youtube.com/watch?v=Bp7OtdExD9Q&feature=relmfu>

PRIOR ACTION/REVIEW

The Village Board allocated \$45,000 for replacement of radio equipment in 2012.

FISCAL IMPACT:

- | | |
|------------------------------|---------------------------------------|
| 1. Is There A Fiscal Impact? | <u>Yes</u> |
| 2. Is it Currently Budgeted? | <u>Yes</u> |
| 3. If Budgeted, Which Line? | <u>Utility and
Street Capital</u> |
| 4. Amount? | <u><\$36,728</u> |

RECOMMENDED ACTION

Village staff recommends that the Village Board approve the radio purchase and direct if staff should obtain additional cost and implementation information for a snowplow website.

If the Village Board agrees with this action, the following motion could be used, "***Motion to purchase narrow band radio equipment to Neilson Communications for \$36,728 minus salvage credit and continue (or not) to explore a snowplow website.***"

POLICY ALTERNATIVE(S)

The Village Board could take the following actions:

- Approve the radio purchase
- Approve the radio purchase and have staff investigate the snowplow website further.
- Deny the purchase and decide how to proceed

ATTACHED INFORMATION

- I. Webpages

COPIES FORWARDED TO:

- I. None



Track Snow Plows Across Chicago [English](#) | [Español](#) | [□□](#) | [Polski](#) |

We're working to keep streets clear and government transparent. During snow storms, this map will show the real-time locations of City plows. You can watch as snow clearing efforts start with the major streets then move to side streets to keep Chicago moving. Here's a behind-the-scenes video from Snow Command and a closer look at the technology that assists in decision making.

**The Plow Tracker
will be activated
during snow events.**

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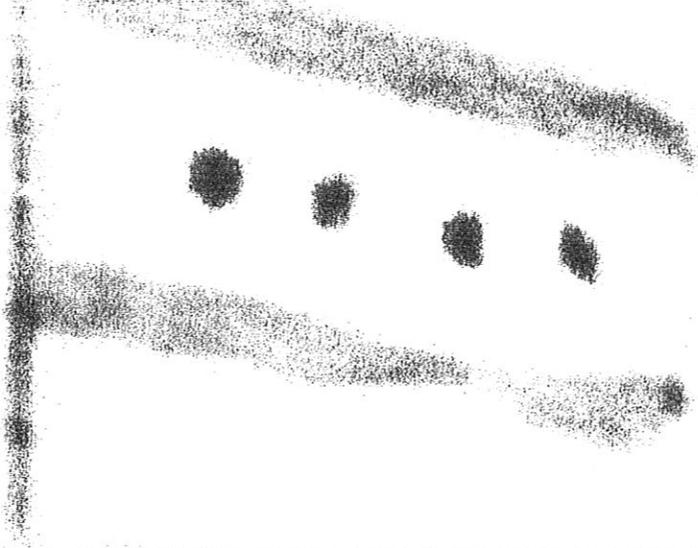
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Commissioner Byrne shows us the tools and technologies that go into preparing for a Chicago winter.

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Top Comments

I don't like to waste my precious time arguing with idiots. The point here is that the PLOWTRACKER Website would be valuable if it showed which streets WERE and WERE NOT plowed. Simply showing where a plow is of little value. For all I know the snow plow driver could be on a Chicago union break eating a Chicago style hotdog.

bobj65835 9 months ago 6

I don't think (though I could be wrong), the Mayor has anything to do with plowing the expressways. That responsibility goes to the state. And they were in terrible shape today and last week. I remember driving about 15 years ago on the expressways in heavy snow but the expressways always managed to be well plowed. It is ridiculous to me that the state could have done fine years ago but can't do it now.

rachezee In reply to valuablevalerie63 (Show the comment) 9 months ago

All Comments (17)

see all

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@ bobj65835 Leave it to the private sector - here's your app to see which streets are plowed - derekederdotcom/clearstreets/



ChicagoShovels



Building a New Chicago
by ChicagoMayorsOffice
4,807 views



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by ChicagoMayorsOffice
622 views



Explaining the new 'Windy City' badge on
by ChicagoMayorsOffice
511 views



CPS Turnaround Schools
by ChicagoMayorsOffice
686 views

Mitch Rezman 9 months ago

I will have to agree with some of the negative comments on the plow tracker website. I am 85 years old and just yesterday I was shoveling my strret and I saw a snow plow jsut sitting in the street. The driver was smokign a cig and talking on his cell phone. I asked the young man if he was going to plow and he told me to go screw myslef. I then checked out the plowtracker web site and it did not show the plow on my street. This is a scam.

GSwasnoski 9 months ago

The liberals in this city like to have to believe that they care about the poor and down and out but they really don't. You can't even park a work truck on the street without getting a ticket. You can get a parking sticker for a "nice non-work truck" like I did. But how is the working man supposed to survive when he or she relies on a work truck for their livelihood?????

bobj65835 In reply to Ivan sandoval (Show the comment) 9 months ago

What kind f PHD do you have a Personal HICK DEVICE? IT amazes me how people will cry about anything. Move away PLEASE> I cat wait to see you whine in your next state

soxfunny98 9 months ago

then move

Veetz in reply to bobj65835 (Show the comment) 9 months ago

Chicago has two winter sports: hockey (played indoors) and Complaining About the Weather.

denal99755 in reply to soxfunny98 (Show the comment) 9 months ago

The PLOWTRACKER Website is a freakin waste of taxpayer money!!!!!!

Can someone tell me even how to use the website? I have a PHD and can't figure it out.

How is the average stupid Chicago liberal supposed to figure it out.

I heard about the PLOWTRACKER Website today on Fox News so I am came by to check it out. The concept might be valid but the usage stinks!!!! Is this why my property taxes have increased 40-60%?!!!!!!!!!!

Outraged in Chicago!

bobj65835 9 months ago

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